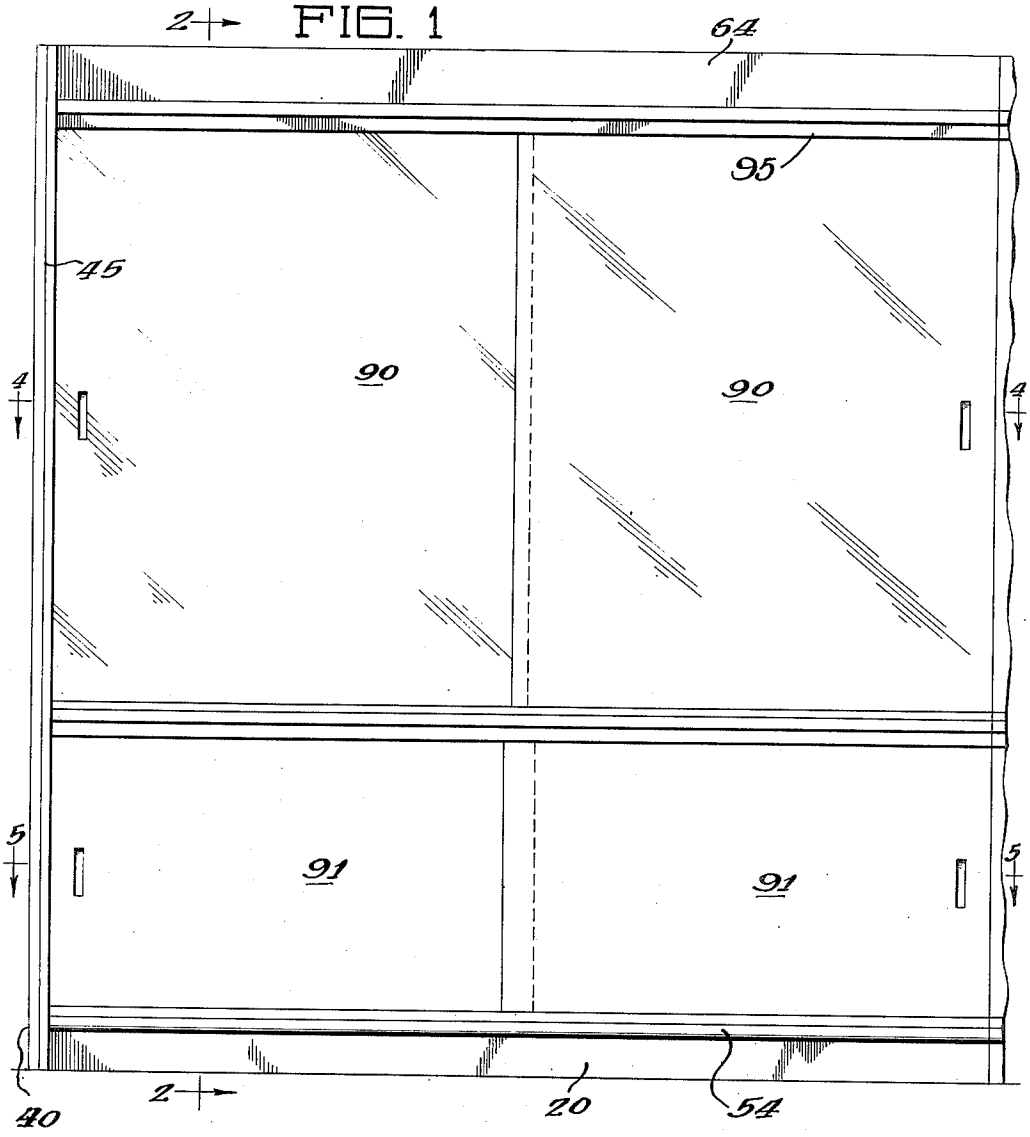
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MERCHANDISE CASE

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FIG. 1



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MERCHANDISE CASE

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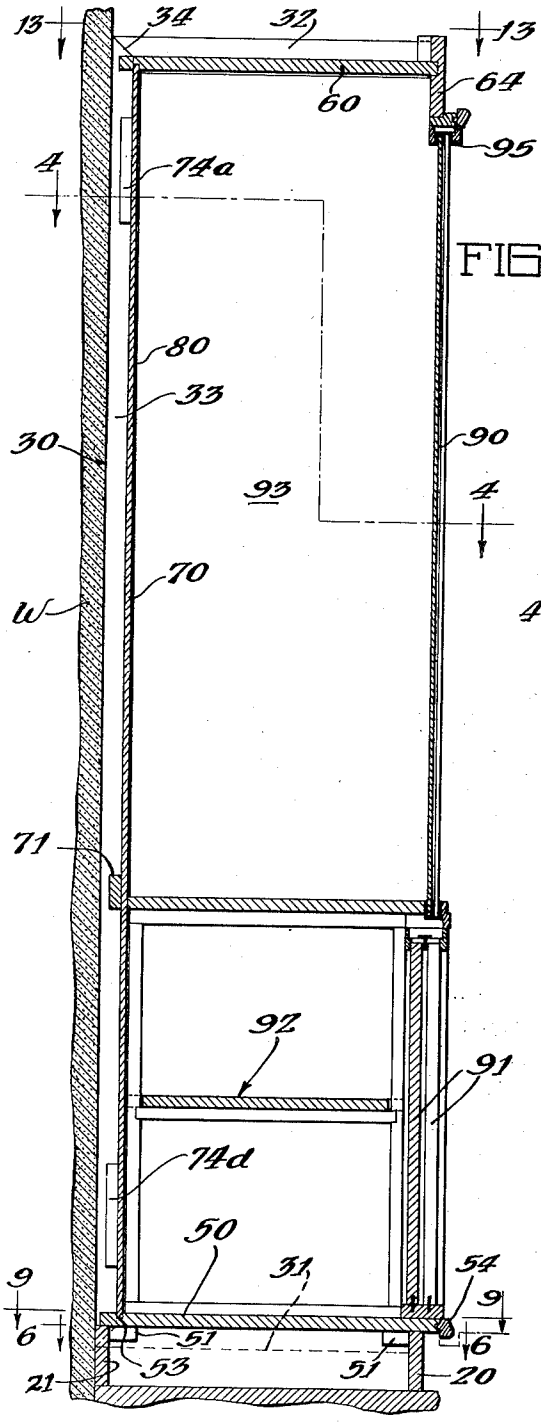


FIG. 2

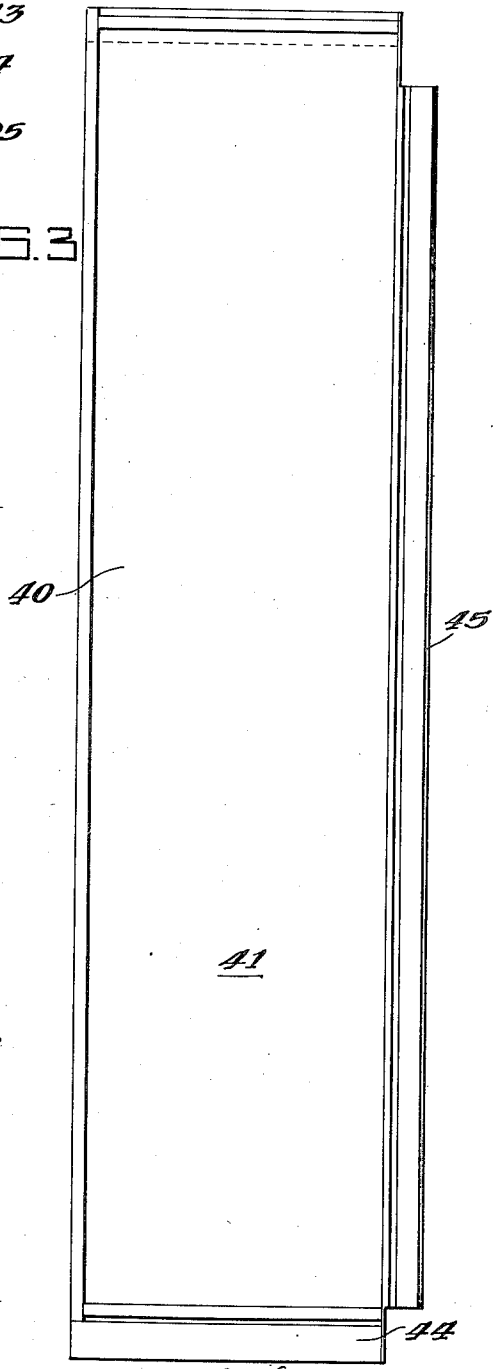


FIG. 3

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MERCHANDISE CASE

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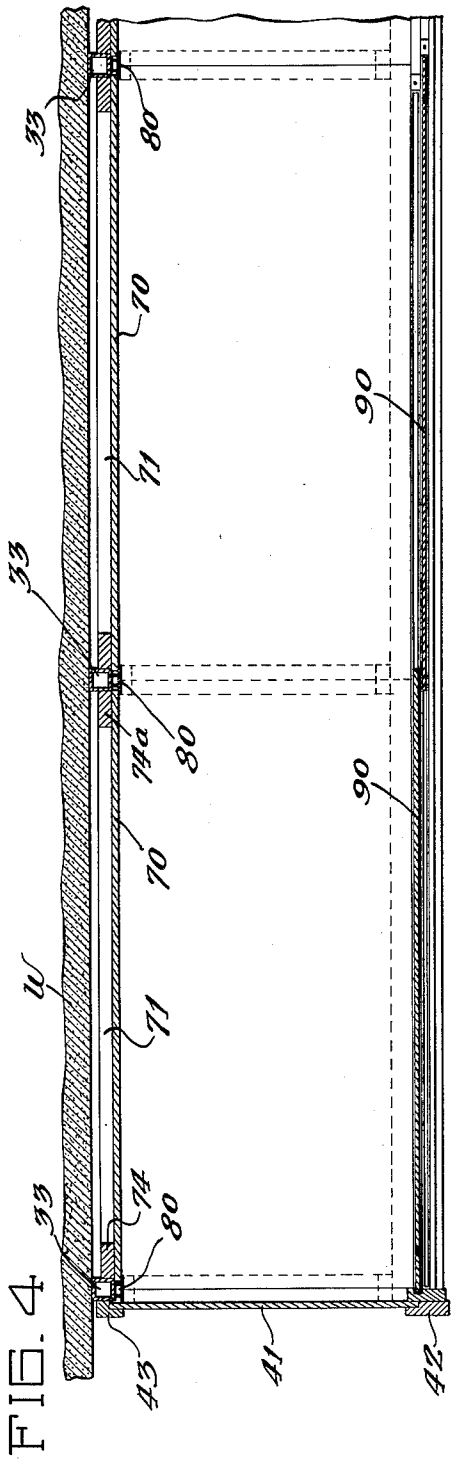


FIG. 4

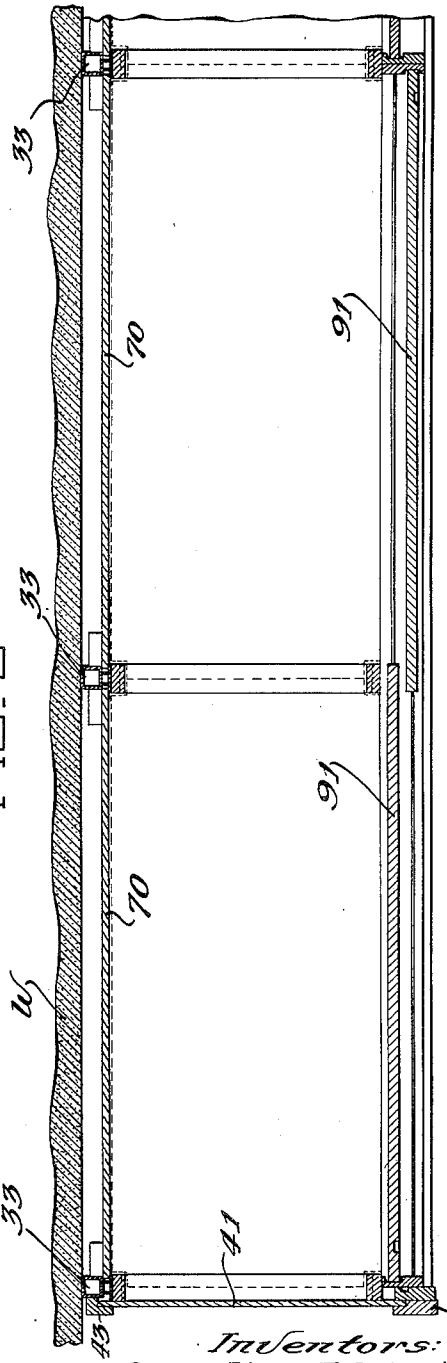


FIG. 5

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MERCHANDISE CASE

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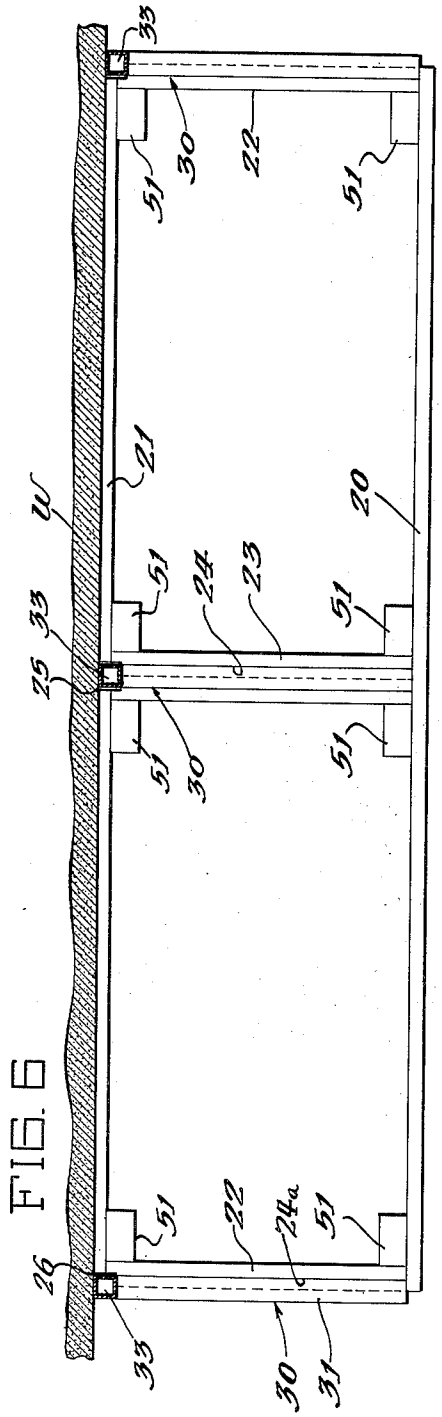


FIG. 6

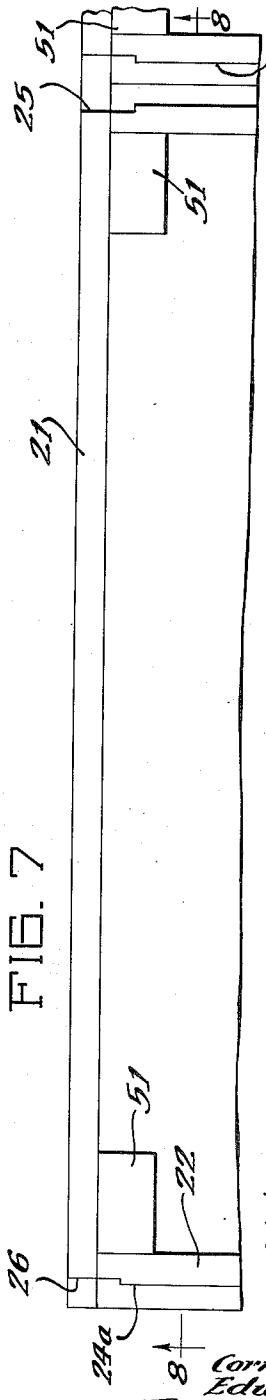


FIG. 7

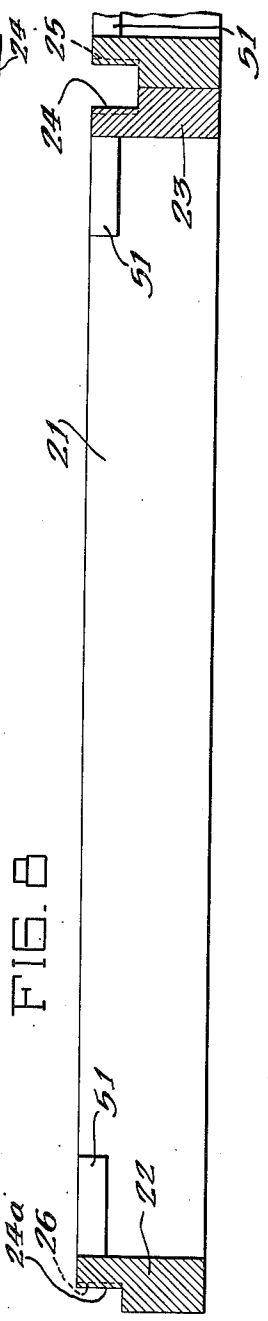


FIG. 8

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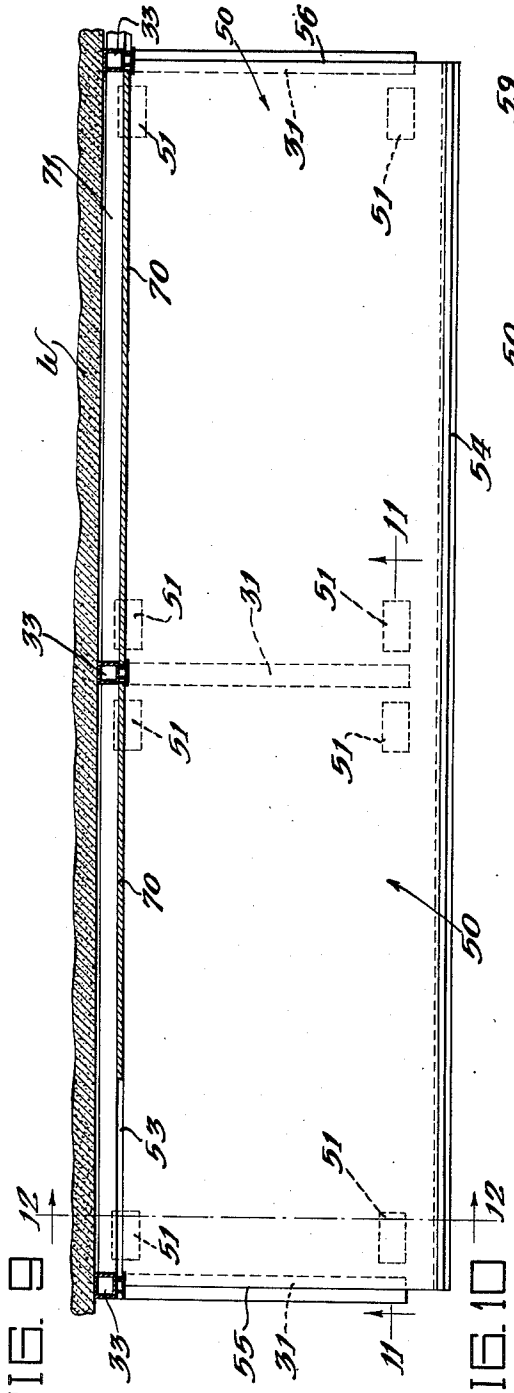


FIG. 9

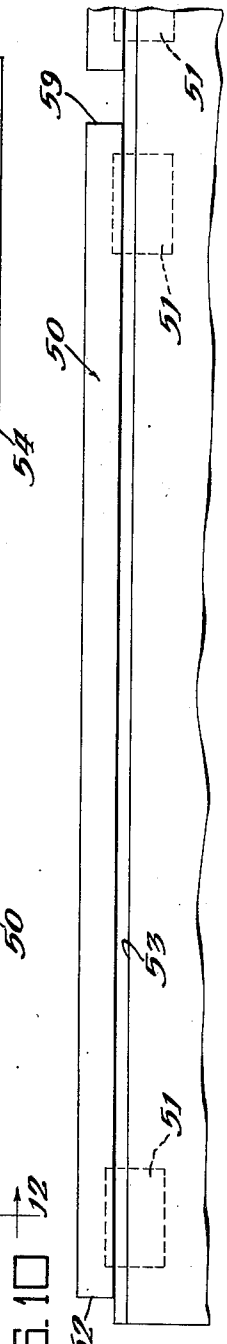


FIG. 10

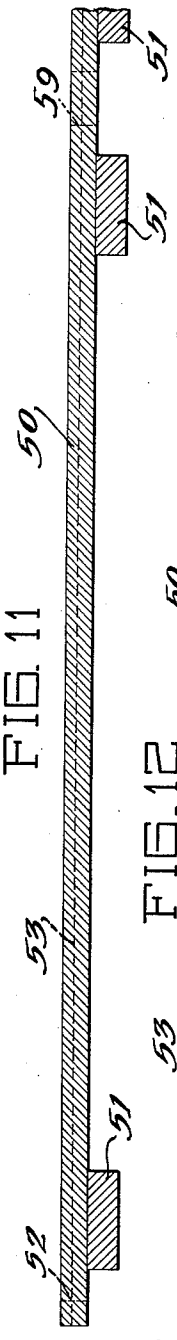


FIG. 11

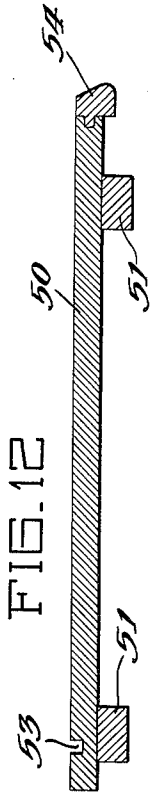


FIG. 12

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MERCHANDISE CASE

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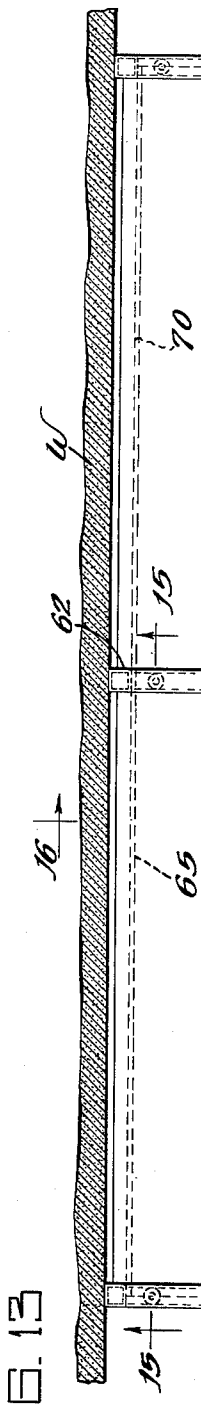


FIG. 13

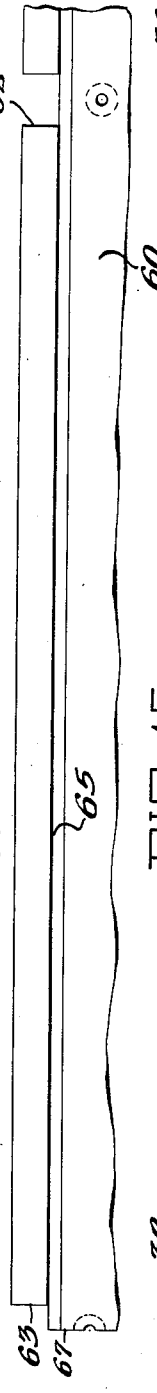


FIG. 14

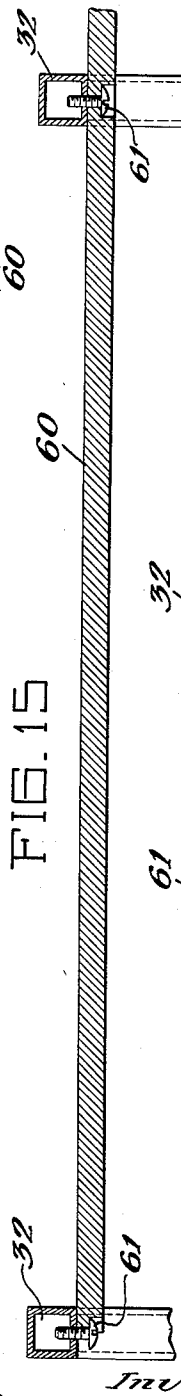


FIG. 15

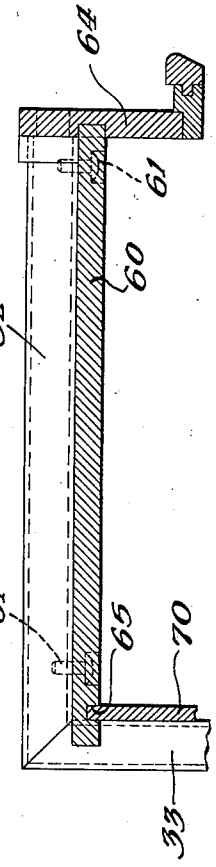


FIG. 16

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MERCHANDISE CASE

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FIG. 17

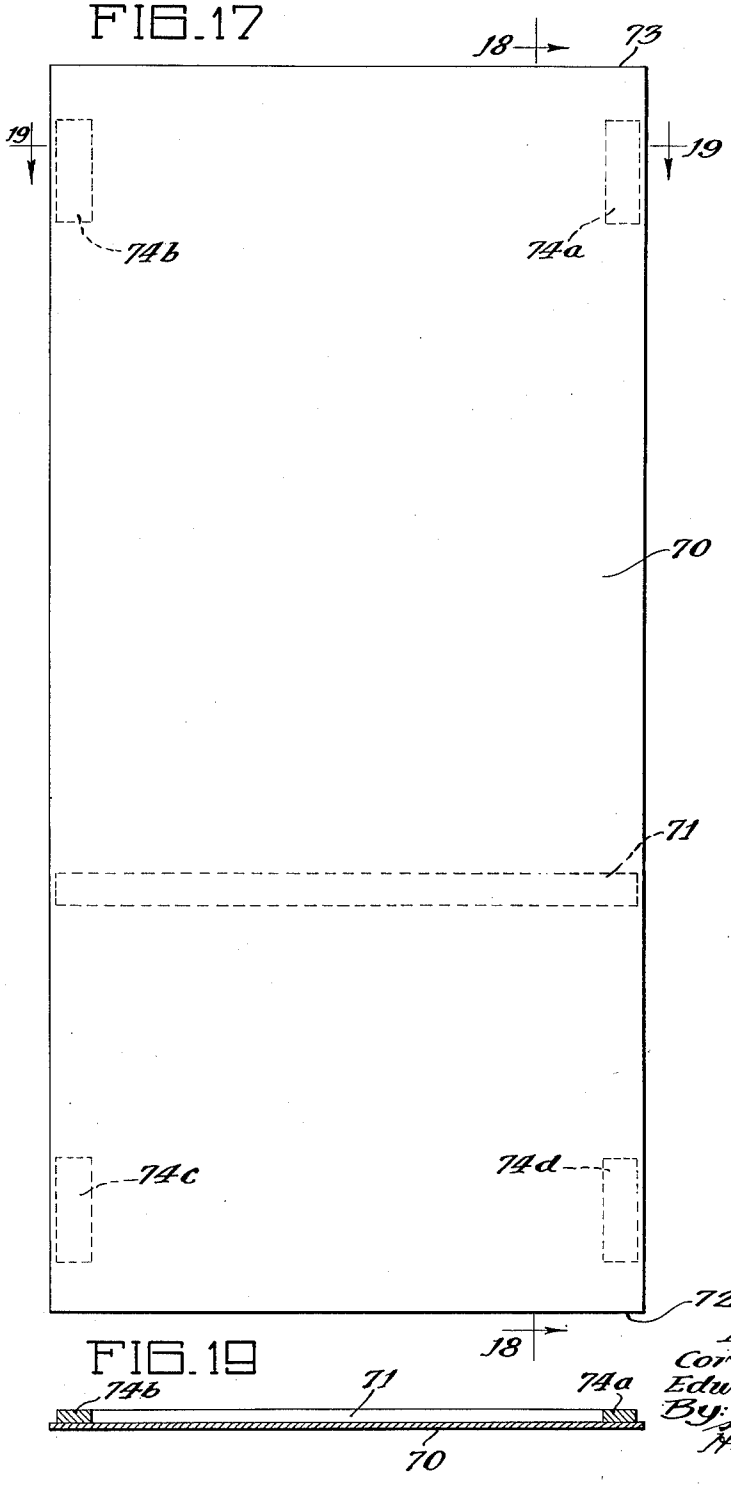


FIG. 18

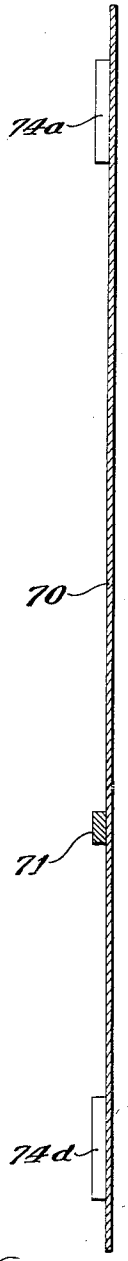


FIG. 19

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2,689,159

UNITED STATES PATENT OFFICE

2,689,159

MERCHANDISE CASE

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Application March 30, 1950, Serial No. 152,804

3 Claims. (Cl. 312—108)

1

The invention relates to a merchandise case for displaying or storing merchandise.

One object of the invention is to provide a basic frame or shell unit which is and remains as a standard construction but is adapted to receive various arrangements or combinations of shelving, drawers, cabinets, hanger bars, and the like, so as to be readily adaptable to fit various merchandising requirements.

Another object is to provide a basic unit which is self-supporting and requires no attachment to building walls or other stationary supports, or no anchoring to the floor by brackets or other means.

Another object is to provide a basic shell unit having a base, ceiling, end and rear walls and concealed structural units supporting the ceiling in a manner obviating the necessity of vertical supports in the front wall of the case, thereby leaving the same completely open and unobstructed and devoid of the usual strips or supports giving the visual effect of dividing the case into sections.

Still another object is to provide a basic shell unit which may be assembled in end to end relationship to give any desired length of merchandise case which is a multiple of the length of the basic unit, and in which the end walls of adjoining units may be eliminated to provide a continuous case undivided by partitions, supporting strips or posts of any character.

A further object is to provide a basic unit of so-called knock-down construction which may be assembled in the field with a minimum of mechanical fastening means.

Another object is to provide a basic case unit of standard parts so as to be capable of economical manufacture, of being shipped knocked-down to reduce transportation charges, of being readily and quickly assembled at the point of use, and of being employed as single units or multiple units.

Other objects, advantages and features of this invention will be apparent from the description taken in connection with an embodiment thereof illustrated in the accompanying drawings in which:

Fig. 1 is a front elevation of a merchandise case showing one basic case unit;

Fig. 2 is a vertical section taken substantially along line 2—2 in Fig. 1;

Fig. 3 is a vertical view of an end panel;

Fig. 4 is a horizontal section taken through the case substantially along line 4—4 in Fig. 1;

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Fig. 5 is a view similar to Fig. 4 taken substantially along line 5—5 in Fig. 1;

Fig. 6 is a horizontal section taken substantially along line 6—6 in Fig. 2;

Fig. 7 is an enlarged horizontal view of a portion of the base frame illustrated in Fig. 6;

Fig. 8 is an enlarged broken section taken substantially along line 8—8 in Fig. 7;

Fig. 9 is a horizontal plan showing the bottom platform;

Fig. 10 is a fragmentary enlarged plan of the rear portion of the bottom platform as shown in Fig. 9;

Fig. 11 is a broken section taken substantially along line 11—11 in Fig. 9;

Fig. 12 is a section taken substantially along line 12—12 in Fig. 9;

Fig. 13 is a horizontal view taken substantially along line 13—13 in Fig. 2;

Fig. 14 is a fragmentary enlarged view of the rear portion of the case top illustrated in Fig. 13;

Fig. 15 is a broken section taken substantially along line 15—15 in Fig. 13;

Fig. 16 is a section taken substantially along line 16—16 in Fig. 13;

Fig. 17 is a vertical view of a back panel from the front side;

Fig. 18 is a vertical section taken substantially along line 18—18 in Fig. 17;

Fig. 19 is a horizontal section taken substantially along line 19—19 in Fig. 17.

While we have herein illustrated and shall describe a preferred embodiment of this invention, the invention is not limited to the particular form shown, it being understood that modifications and changes may be made by those skilled in the art without departing from the spirit and scope of the invention as set out in the accompanying claims.

The invention comprises broadly a basic merchandise case frame or shell unit structurally complete on its own base for receiving any desired interior arrangement of shelves, drawers, cabinets and the like. This basic unit may be installed in any store without attaching the same to the building and may be employed singly or in multiples in end to end relationship to provide cases of different lengths. Generally, the basic unit consists of a plurality of standard prefabricated parts adapted to be assembled in the store in which the merchandise case is to be used. These parts include a base frame, end closing panels, a bottom floor or platform, an upper case panel or ceiling, back panels and, most important of all, structural members form-

ing the backbone of the unit. These structural members are herein so designed as to support the upper or ceiling panel without the aid of end panels or, more particularly still, supports in the front wall of the case, thus permitting a continuously open, unobstructed front wall. When the parts are assembled, a rigid case structure, open only on the front, is ready to receive and support interior fittings of the proprietor's choice. The parts of the invention will be described generally in the order in which they are assembled to form the basic unit structure.

The base frame (as best seen in Figs. 6 to 8) generally comprises a front member **20**, a rear member **21**, end members **22** and a center member **23** parallel to the end members **22**. Each end member has an upwardly and outwardly opening recess **24***a* of a depth twice its width so that when two base frames are abutted end to end (see Figs. 7 and 8) these result in a square channel **24**. Center member **23** is in fact composed of two end members **22** placed recess to recess so that it has formed in it a channel **24**. The rear portion of each channel is enlarged as illustrated at **25** and **26** in Fig. 7 to facilitate reception of a cooperating element as will be more fully described hereinafter. The base frame is adapted to sit on the floor of a store building, or the like, and to support the weight of the entire merchandise case.

The structural backbone of this merchandise case is a plurality of elements **30** (Fig. 2) which rest on and extend upwardly from the base frame to support the major portion of the other case parts. The elements provide a strong structure, in turn providing a case of any desired length in multiples of the basic unit, without a single upright in the front plane of the case. These structural elements **30** are metallic frames. We here show the elements **30** as having a "C" shape with the lower portion **31** positioned in a channel **24**, an upwardly extending portion **33** connected at a right angle to the portion **31** and an upper portion **32** substantially parallel to the lower portion **31**. The portions **31**, **32** and **33** of each frame have their axes in a single plane and while many structural shapes may be employed, we prefer a hollow member having a substantially square transverse cross-section. The square, hollow frame is preferable in that it resists bending stress in the plane of the frame and also twisting stresses which may be applied laterally to the plane of the frame. Also, the straight sides of the frame permit good contact between the wood parts of the case and the frame. We also prefer to employ straight portions, such as **31**, **32**, **33**, cut on a 45° angle and welded along the resulting seams **34**, the weld between the lower portion **31** and portion **33** fitting into the enlarged portions **25** and **26** in the base frame. The channels **24** and the lower portions **31** of the C-frames are so proportioned that the latter are received snugly in the channels **24** with the top surfaces of the portions **31** flush with the top of the center and end members of the base frame.

After a base frame or the desired number of base frames have been placed together in position in a store or the like and the metallic C-frames placed in the channels **24**, end panels **40** are placed in proper position. Each end panel has a bottom member **44** having a recess in its upper portion corresponding to the recess **24***a* in the end members **22** of the base frame. The placing of an end panel adjacent the base frame results in a complete channel **24** for receiving the lower portion **31** of the end C-frame. A mechanical fastening means, such as screws, are used to secure the end panel to the base frame and the end C-frame. The end panel may be finished (Figs. 4 and 5) with a center panel **41** flush with frame edge members **42** and **43** either on the outside or inside, of the case or on both sides, depending upon the exposure of the end panel to view. A flush panel is desired where the end panel may be seen to add to the case appearance. The front edges **45** of the end panels are the only structure lines in the otherwise unobstructed front plane of the case.

A bottom platform **50** (see Figs. 9–12) performs the triple purpose of strengthening and bracing the base frame, providing a floor for the merchandise case and retaining and concealing the lower portion **31** of the C-frame in the channel **24**. A single flat piece of wood material of sufficient size to cover one base frame unit is employed having an outer configuration adapted to fit adjacent the other portions of the case to completely enclose the base frame. In this regard, one end **55** of the bottom platform may abut an end panel **40** previously described, while the other end **56** may abut an adjoining bottom platform over an adjoining base frame. Cut-out portions **52** and **59** (see Fig. 10) are adapted to fit about the upwardly extending portions **33** of the C-frames. A plurality of stay-blocks **51** are secured to the underside of the platform and are so positioned and arranged to fit snugly in the corners of the base frame. These blocks **51** and the bottom platform serve as a brace member preventing any twisting of the members of the base frame from their proper alignment. The platform merely rests upon the upper surface of the members of the base frame and over the upper surface of the lower member **31** of the C-frames. No fastening means are required as the blocks **51** fit rather snugly in the corners of the base frame and the C-frames bear downwardly in the channels **24** in which they repose. A longitudinal groove **53** is provided in the upper surface of the platform **50**, positioned adjacent the upwardly extending portions **33** of the C-frames. This groove is provided for the reception of the lower edge of the back panels as hereinafter described. A decorative moulding strip **54** is secured to the front edge of the platform, adding perceptively to its appearance.

A case top panel **60** (Figs. 13–16) corresponding approximately in size to the bottom platform **50** is next secured to the underside of the upper portions **32** of the C-frames. This top panel is also of one piece wood material provided with notches such as **62** and **63** to fit around the upwardly extending portions of the C-frames. The panel may be secured to the C-frames by metal screws **61** and when so secured, act as a brace member between the upper portions of the C-frames preventing any twisting thereof. The C-frames are preferably drilled and tapped before they are taken to the site of construction so that the screws **61** may be inserted in the field without a field tapping and drilling. As stated above, the panel is of sufficient size to enclose the entire upper surface of the case and in this regard one end **67** of the panel may abut an end panel **40** and the other end **68** may be flush with the adjoining case top panel. A longitudinal groove **65** is provided in the lower surface of the top panel to receive the upper edge of the back panels

as hereinafter more fully described. A decorative moulding strip 64 is attached to the case top panel before bringing it to the site and extends sufficiently above the top panel to enclose the ends of the C-frames and may also serve to support an upper trackway 95 (see Fig. 2) for glass closure doors 90 or the like.

The assembly of the case parts described above presents a complete case except for the back panels. As previously described, the C-frames have a lower portion received in channels in the base frame which tends to hold the C-frames vertical. The case top panel braces the C-frames against relative twisting movement and the bottom platform cooperates to hold the base frame from distortion. The back panels 70 complete the case structure and provide a means for bracing the upwardly extending portions of the C-frames, holding them in their proper position. Each back panel 70 is of sufficient size (Figs. 2, 17–19) to extend between two adjacent C-frames and between the bottom platform and case top panel. The panel 70 ordinarily is made of a thin plywood or other wood composition board reinforced by a single horizontal strip 71. The panel is quite limber and may be bowed sufficiently to allow the lower edge 72 to be inserted in the horizontal groove 53 in the bottom platform and the upper edge 73 inserted in the horizontal groove 65 in the case top panel. After the edges are placed in the grooves, the panel 70 is then returned to its natural flat shape bringing bearing blocks 74*a*, *b*, *c* and *d* in abutting relationship with the sides of the upwardly extending portions 33 of the C-frames. Vertically aligned bearing blocks 74*a* and 74*d* hold the C-frame against which they abut in vertically aligned position with the cooperation of like bearing blocks on the adjacent back panel. The back panels thus serve to brace the C-frames against any movement longitudinally of the case or twisting relative to each other. A generally T-shaped metallic retaining strip 80 (see Fig. 4) is secured by bolts, metal screws or the like to the portions 33 of the C-frames to secure the back panels flat against the C-frames. The retaining strips 80 may serve the dual purpose of providing adjustable support means for shelving, later to be inserted in the case. Any small crack between adjacent back panels is thus hidden and a long case may appear to have a one piece back panel.

When the portions of the merchandise case are assembled, a complete unit is ready to receive an interior arrangement of units dictated by the proprietor's needs. The merchandise case presents a completely enclosed area opened on the front with the front plane of the case unobstructed by any vertical structural members. The parts of the case are so interfitted, as previously described, to completely brace the case against any twisting or sagging of any individual part. The interior arrangement of the case is entirely independent of the basic structural unit and will be fitted to the individual requirements of the particular proprietor. In Fig. 1, one arrangement is shown having sliding glass doors 90 on the upper portion of the case and sliding wood doors 91 on the lower portion. It is to be observed that if several basic case units be placed end to end with the interior arrangement shown in Fig. 1, a continuous succession of glass doors 90 and wood doors 91 would be presented to view along the entire case structure. In Fig. 2, it will be noticed that enclosed shelving 92 may comprise a separate unit merely set into the basic case structure to rest on the bottom platform 50. The glass doors 90 on the upper portion are in turn supported by the bottom enclosed shelves 92. The interior structure of the case may be fastened to the basic case structure or merely set in position as desired. The basic unit is adapted to be placed adjacent a wall W as illustrated in Figs. 2, 4 and 5 or may be placed away from a wall in the discretion of the individual proprietor.

From the foregoing, we believe it is apparent that we have invented a new and useful merchandise case having a plurality of cooperating parts which may be easily installed and adapted to the user's needs without securing the case to any part of the building in which the proprietor conducts business.

We claim:

1. A prefabricated merchandise case unit, comprising a substantially rectangular base frame having parallel end and center members, said center member having a longitudinal channel in its upper portion and said end members each having a longitudinal recess opening upwardly and outwardly of the base frame, a metallic C-frame extending upwardly above each end and center member of the base frame, said C-frames each having a lower portion positioned respectively in said channel and recesses, an upper portion parallel to the lower portion and a connecting portion extending between the upper and lower portions over the rear of the base frame, each portion of said C-frame being hollow and having a substantially square transverse cross-section, an end panel enclosing each end of the case and providing a recess in its bottom portion to cooperate with the recess in an end member of the base frame to form a channel to receive the lower portion of a C-frame, a bottom platform resting on said base frame and having a configuration adapted to enclose the base frame from view, said bottom platform being provided with a plurality of stay blocks secured to its underside to fit snugly in the corners of the base frame to brace the members thereof, a case top panel secured to the underside of the upper portions of said C-frames to brace the C-frames and to enclose the upper portion of the case, said bottom platform and case top panel having oppositely facing longitudinal grooves extending adjacent the connecting portions of the C-frames, back panels each extending between a pair of adjacent C-frames and having upper and lower edges respectively positioned in said longitudinal grooves, said back panels being provided with bearing blocks on their back sides adapted to abut the sides of the connecting portions of the C-frames to maintain them vertical and retaining strips each fastening adjacent back panels to a C-frame.

2. A merchandise case unit, comprising a generally rectangular base frame having front and rear members, end members and a center member parallel to the end members, said end and center members each having a channel in its upper portion extending through said rear member, a plurality of generally C-shaped metallic frames supported in the channels in the end and center members of the base frame and each having an upper and lower generally horizontal portion and a generally vertical connecting portion therebetween, said C-frames each having a substantially square transverse cross-section and the channel in said end and center members being deep enough to receive the lower horizontal portion of said C-frame therein flush with

the top edge of said channel, an end panel attached to said base frame and to a C-frame for enclosing an end of the case, a bottom platform separate from said base frame resting thereon in overlying relation to the lower horizontal portion of a C-frame mounted in said channels and having notches in its rearward edge for fitting about the vertical portions of the C-frames, said bottom platform having a longitudinal groove extending the length thereof adjacent the vertical portions of said C-frames, a flat case top panel secured to the underside of the upper portion of said C-frames and having a longitudinal groove positioned above the longitudinal groove in said bottom platform, back panels having their upper and lower edges respectively positioned in said longitudinal grooves, each back panel being in contact with and extending between adjacent C-frames, and a plurality of vertically spaced blocks mounted on said back panels to abut the sides of the vertical portions of said C-frames to retain said frames in vertically aligned position.

3. A merchandise case unit, comprising a generally rectangular base frame having parallel center and end members, each of said center and end members having a longitudinal channel in its upper portion extending through the rear of the base frame, metallic C-frames each having upper and lower parallel portions and a connecting portion therebetween mounted on the base frame with its lower portion positioned in one of said channels, said C-frames being parallel and extending upwardly from the base frame, the channel in each center and end member being of a depth just equal to the thickness of the lower portion of a C-frame to receive the same therein flush with the top surface of said center and end members, a bottom platform separate from said base frame resting thereon in overlying relation to the lower portion of any C-frame in the channels of said base frame and having a longitudinal slot in its upper surface adjacent the connecting portions of said C-frames, a case top panel secured to the underside of said upper portions of the C-frames and having a longitudinal slot in its lower surface parallel to and vertically above said slot in the bottom platform, back panels having their upper and lower edges respectively positioned in said longitudinal grooves, each back panel extending between a pair of adjacent C-frames and a plurality of vertically spaced blocks mounted on said back panels for abutting said connecting portions to maintain said C-frames in vertically aligned position over the base frame.

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