

Feb. 10, 1970

A. G. DIACK

3,494,686

SHOWCASE FRAME

Filed Aug. 28, 1967

3 Sheets-Sheet 1

FIG. 1.

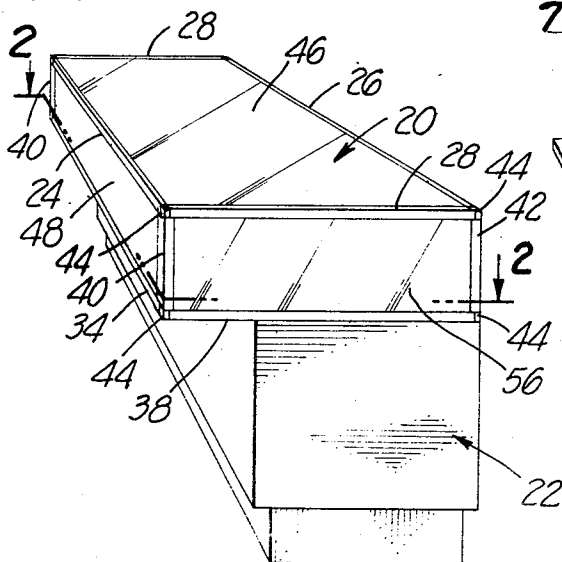


FIG. 6.

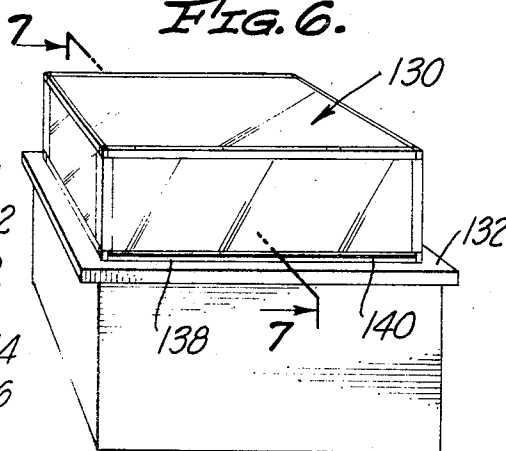


FIG. 2.

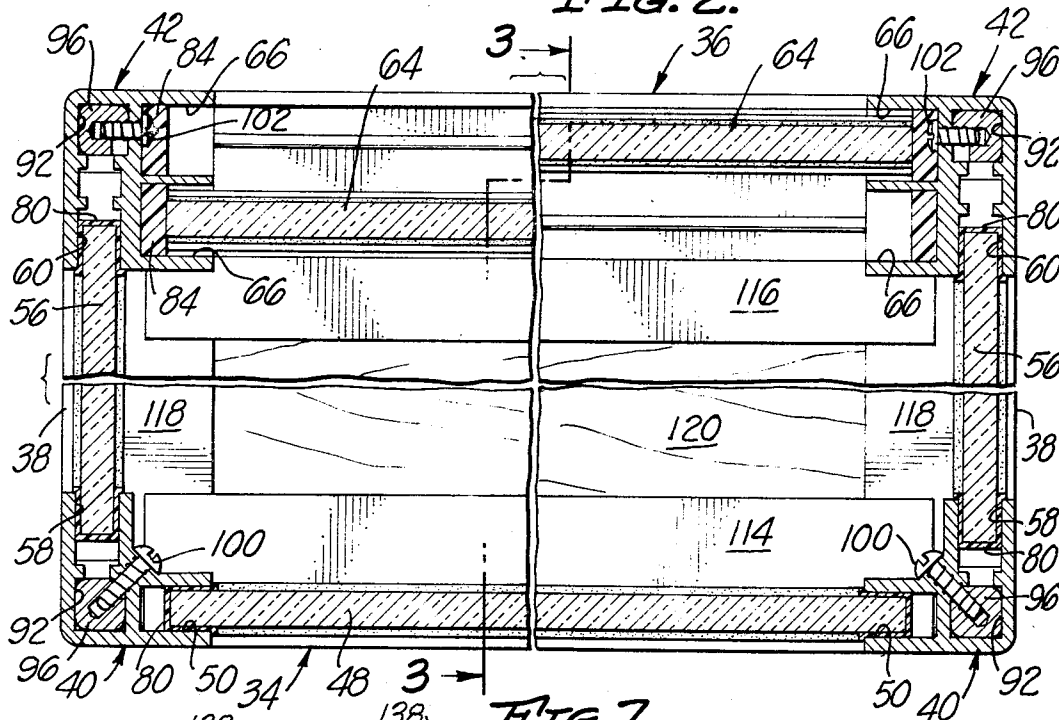
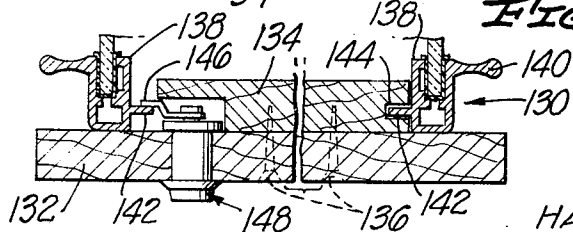


FIG. 7.



INVENTOR
ARTHUR G. DIACK

BY HIS ATTORNEYS
HARRIS, KIECH, RUSSELL & KERN

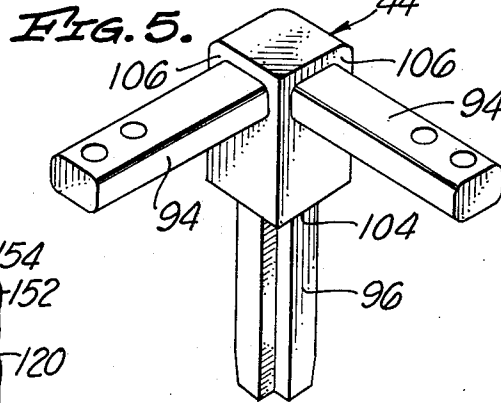
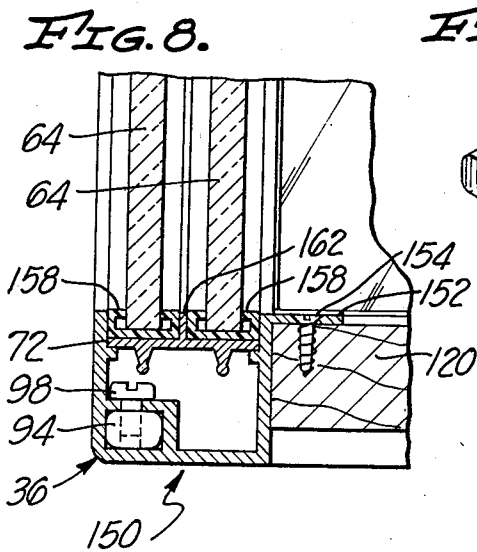
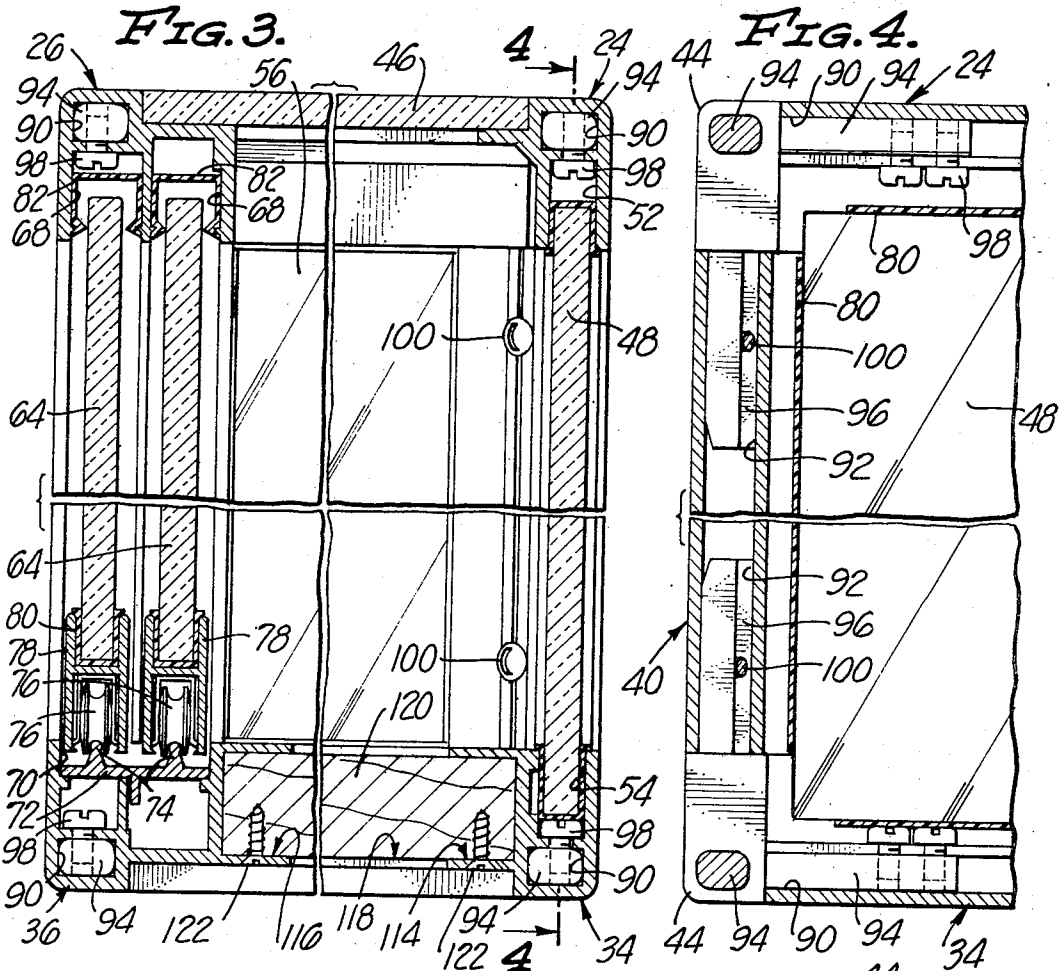
Feb. 10, 1970

A. G. DIACK
SHOWCASE FRAME

3,494,686

Filed Aug. 28, 1967

3 Sheets-Sheet 2



INVENTOR
ARTHUR G. DIACK

BY HIS ATTORNEYS
HARRIS, KIECH, RUSSELL & KERN

Feb. 10, 1970

A. G. DIACK
SHOWCASE FRAME

3,494,686

Filed Aug. 28, 1967

3 Sheets-Sheet 3

FIG. 9.

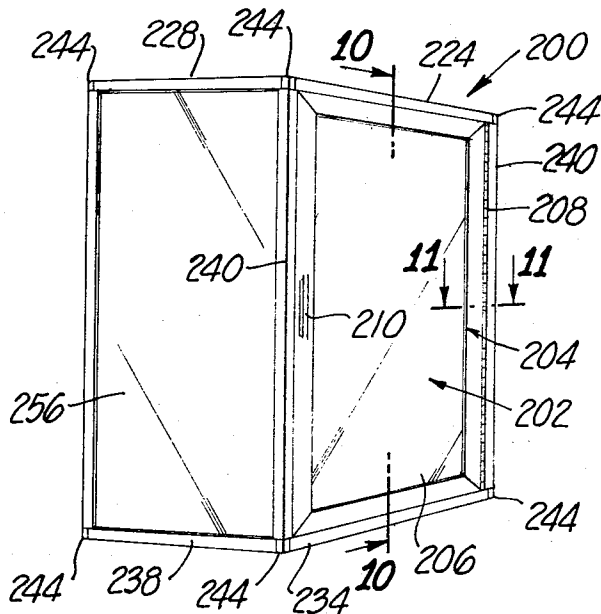


FIG. 10.

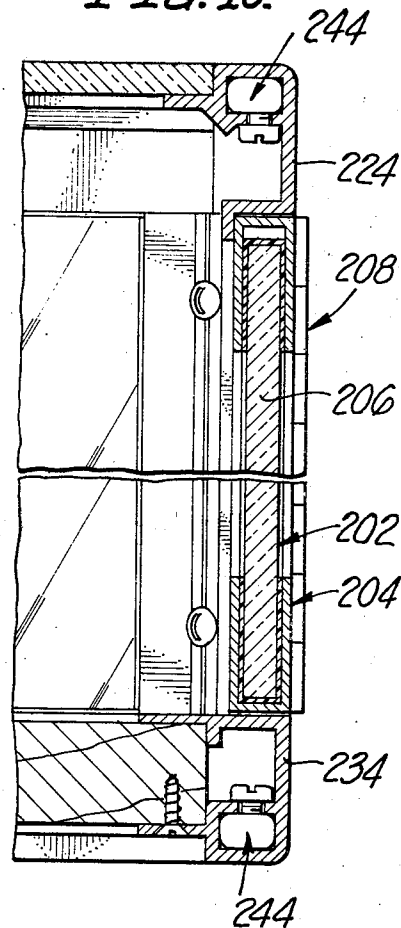
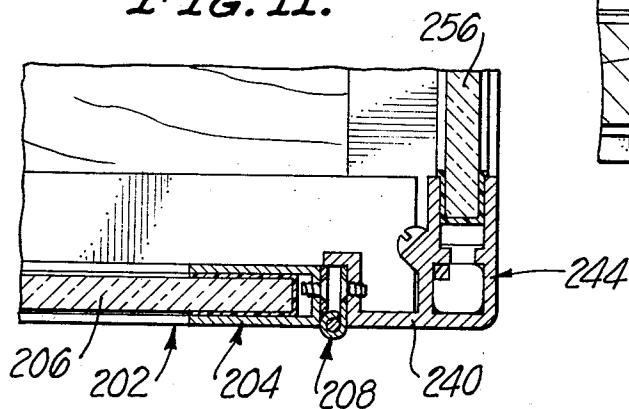


FIG. 11.



INVENTOR
ARTHUR G. DIACK

BY HIS ATTORNEYS
HARRIS, KIECH, RUSSELL & KERN

1

3,494,686

SHOWCASE FRAME

Arthur G. Diack, 1049 E. 65th St.,
Inglewood, Calif. 90302

Filed Aug. 28, 1967, Ser. No. 663,830

The portion of the term of the patent subsequent to
Oct. 10, 1984, has been disclaimed

Int. Cl. A47f 3/00; A47b 47/00

U.S. Cl. 312-140

7 Claims

ABSTRACT OF THE DISCLOSURE

A rectangular showcase frame comprising four upper rails, for lower rails and four posts arranged to form the eight corners of the frame. The post and the rails forming each corner are interconnected by a three-pronged corner connector having the prongs thereof respectively plugged into sockets in the corresponding post and rail ends. The posts and rails have square-cut ends respectively engaging abutment surfaces on the corner connectors which are parallel to the post and rail ends. The exposed portions of the corner connectors are flush with the posts and rails. The lower rails include longitudinal channels which face horizontally inwardly and which are adapted to receive therein and to completely enclose and conceal the edges of a rectangular showcase floor.

CROSS-REFERENCES TO RELATED APPLICATIONS

This application is related to my co-pending applications Ser. No. 467,468, filed June 28, 1965, now Patent No. 3,346,310, issued Oct. 10, 1967, and Ser. No. 496,850, filed Oct. 18, 1965, now Patent No. 3,365,257, issued Jan. 23, 1968.

BACKGROUND OF INVENTION

As general background for the present invention, my aforementioned co-pending applications disclose, and the present invention contemplates: a showcase having a construction such that it can be manufactured, shipped, assembled and installed at but a fraction of the cost of conventional showcase manufacturing, assembling, shipping and installing procedures; a showcase frame which requires no welding and subsequent grinding, polishing, cleaning, plating, and the like, which can be shipped disassembled to reduce shipping costs drastically, which is easily assembled and glazed at its destination, preferably utilizing glass obtained locally to avoid high glass shipping costs, and which can be assembled and glazed at its destination quickly and easily with but a few screws, or the like; a showcase frame which has a perfectly smooth exterior, all adjacent external surfaces being flush with each other, which has rounded corners at waist level to prevent injury to customers and employees, and which has no external screws, bolts, or the like, to mar the desired perfectly smooth exterior; a showcase frame comprising easily connectible post and rail members having longitudinally extending panel-receiving channels into which the corresponding edges of the glass panels may simply be slipped as the frame is assembled, thereby eliminating any necessity for fitting and attaching molding strips, clips, or the like, for securing the glass panels, and also eliminating the tremendous labor costs of, and the unsightly appearance resulting from, the countless screws needed for attaching such separate glass securing elements; a showcase frame wherein the various post and rail members have the required longitudinally extending panel-receiving channels formed integrally therewith so that each frame member is a single piece with

2

no assembly of separate components required, the various frame members preferably being aluminum extrusions anodized, enameled, or plated, as desired; a showcase frame wherein the various post and rail members have square-cut ends, as opposed to mitered ends, engageable with complementary abutment surfaces on corner connectors, for interconnecting the post and rail members, to produce the desired smooth, flush external contour, it being possible to furnish the various post and rail members in stock lengths which can readily be cut to the lengths required for a particular showcase by the showcase manufacturer since only square cuts are required; and a showcase frame wherein the corner connectors are three-pronged connectors the prongs of which are respectively plugged into longitudinally extending sockets in the post-member and rail-member ends forming each corner of the showcase.

SUMMARY AND OBJECTS OF INVENTION

Summarizing the invention, it comprises a showcase frame which includes: four lower rail members arranged in a rectangle and having longitudinal sockets therein extending from one end thereof to the other; four upper rail members arranged in a rectangle above the rectangle defined by the lower rail members, and having longitudinal sockets therein extending from one end thereof to the other; four post members respectively extending between corresponding corners of the rectangles defined by the upper and lower rail members, respectively having lower ends in corner-forming relation with adjacent ends of adjacent ones of the lower rail members, respectively having lower ends in corner-forming relation with adjacent ends of adjacent ones of the upper rail members, and respectively having longitudinal sockets therein extending from one end thereof to the other; eight three-pronged corner connectors each having the prongs thereof respectively aligned with and plugged into the sockets in one end of one of the post members and in the adjacent ends of adjacent ones of the rail members; and longitudinally extending channels respectively carried by the lower rail members and facing inwardly relative to the rectangle defined by the lower rail members and respectively adapted to receive therein and to completely enclose and conceal corresponding edges of a rectangular showcase floor disposed within the rectangle defined by the lower rail members.

The primary object of the present invention is to provide the lower rail members of the showcase frame with the aforementioned longitudinally-extending inwardly-facing channels to receive and completely enclose and conceal the edges of a rectangular showcase floor. A related object is to utilize the three-pronged corner connectors for the post and rail members at all eight corners of the showcase frame, including the four lower corners, as well as the four upper corners.

A showcase frame conforming to the foregoing objects of the invention has a number of important advantages.

First of all, the structure of the showcase frame is substantially independent of the showcase floor. In other words, the showcase floor merely constitutes the bottom of the showcase and has relatively little or nothing to do with the structure of the showcase frame.

Since the showcase floor is not a structural element of the showcase frame, it is unnecessary to perform any manufacturing operations on the showcase floor, such as sawing operations, mortising operations, or the like. This reduces labor costs in manufacturing a showcase utilizing my showcase frame, which is an important feature.

Another important result flowing from the foregoing objects of the invention is the complete concealment of the

edges of the showcase floor by the longitudinally-extending inwardly-facing channels on the lower rail members. Consequently, there is no necessity for providing the showcase floor with finished edges since such edges are received in and hidden by the inwardly-facing channels on the lower rail members.

In view of the foregoing, the showcase floor may simply be a rectangular piece of any suitable material with completely unfinished edges. For example, it may simply be a rectangular piece of relatively heavy plywood, such as three-quarter inch plywood, for example. Absolutely no finishing operations are required on such a piece of plywood, other than to finish the upper surface thereof to conform to the desired interior decor for the showcase. More particularly, no sawing or mortising operations, or the like, are necessary, nor is it necessary to finish the raw edges of the piece of plywood in any way.

Another and quite important object of the invention is to provide the showcase with tracks for bypassing sliding doors which are flush with the showcase floor so that the tracks provide no obstruction in placing articles in or removing them from the showcase. Further, this flush arrangement of the showcase floor and the tracks reduces cleaning and maintenance costs as compared to a showcase having tracks mounted on top of the showcase floor.

The foregoing objects, advantages, features and results of the present invention, together with various other objects, advantages, features and results thereof which will be evident to those skilled in the showcase and allied arts, may be achieved with the exemplary embodiments of the invention illustrated in the accompanying drawings and described in detail hereinafter.

DESCRIPTION OF DRAWINGS

In the drawings:

FIG. 1 is a perspective view of a showcase which embodies the invention, the showcase of FIG. 1 being shown as relatively shallow and as resting on a relatively high pedestal with an overhang forwardly of the pedestal;

FIG. 2 is an enlarged, fragmentary sectional view taken as indicated by the arrowed line 2—2 of FIG. 1;

FIG. 3 is a fragmentary sectional view taken as indicated by the arrowed line 3—3 of FIG. 2;

FIG. 4 is a fragmentary sectional view taken as indicated by the arrowed line 4—4 of FIG. 3;

FIG. 5 is an isometric view of a three-pronged corner connector utilized to interconnect post and rail members of the showcase frame of the invention;

FIG. 6 is a perspective view of a relatively shallow showcase embodying the invention which is adapted to be supported by a pedestal projecting outwardly beyond the showcase on all sides thereof;

FIG. 7 is an enlarged, fragmentary sectional view taken as indicated by the arrowed line 7—7 of FIG. 6;

FIG. 8 is a fragmentary sectional view duplicating the lower left corner of FIG. 3, but illustrating an alternative embodiment of the invention;

FIG. 9 is a perspective view of a showcase which embodies the invention and which is provided with a hinged front door;

FIG. 10 is an enlarged, fragmentary sectional view taken as indicated by the arrowed line 10—10 of FIG. 9; and

FIG. 11 is an enlarged, fragmentary sectional view taken as indicated by the arrowed line 11—11 of FIG. 9 of the drawings.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS OF INVENTION

Showcase 20, FIGS. 1 to 5

Referring initially to FIG. 1 of the drawings, the showcase 20 is shown as mounted on a relatively high pedestal 22 and as being high enough only to locate the top thereof at counter-top height. Also, the showcase 20 is shown as

projecting forwardly from the front side of the pedestal 22 to provide the showcase with a forward overhang.

It will be understood, however, that the invention may be embodied in showcases of any desired height, and is not restricted to the height shown for the showcase 20. For example, the invention may be embodied in a showcase, not shown, extending substantially from floor level to counter height. Thus, it will be understood that the showcase 20 is illustrative only.

Considering the showcase 20 generally, it includes a frame having as its principal components upper front and rear rails or rail members 24 and 26, upper side or end rails or rail members 28, lower front and rear rails or rail members 34 and 36, lower side or end rails or rail members 38, and front and rear posts or post members 40 and 42 respectively extending between the front and rear corners of the upper and lower rectangles defined by the upper and lower rails. A three-pronged corner connector 44 at each of the eight corners of the frame of the showcase 20 interconnects the corresponding post and rail ends.

The top of the showcase 20 is formed by a top glass panel 46 carried by the top rails 24, 26 and 28 in the manner described in my co-pending application Ser. No. 467,468. The front of the showcase 20 is defined by a front glass panel 48 the respective edges of which are disposed in panel-receiving channels in the front posts 40 and the upper and lower front rails 24 and 34, such channels extending longitudinally of the respective members and facing laterally inwardly relative to the front of the showcase. The channels in the front posts 40 are visible in FIG. 2 and are identified by the numeral 50. The channels in the upper and lower front rails 24 and 34 are visible in FIG. 3 and are identified by the numerals 52 and 54, respectively.

Similarly, the front and rear posts 40 and 42 and the upper and lower end rails 28 and 38 are provided with longitudinally extending channels facing laterally inwardly toward the centers of the end walls of the showcase 20 to receive the corresponding edges of end glass panels 56. These channels in the front and rear posts 40 and 42 are visible in FIG. 2 of the drawings and are identified by the numerals 58 and 60, respectively.

The manners in which the front glass panel 48 and the end glass panels 56 are mounted in the corresponding frame members are fully described in my co-pending patent application Ser. No. 467,468. Consequently, a further description herein is not necessary.

The rear of the showcase 20 is provided with bypassing sliding glass panels 64 in the manner also disclosed in detail in my co-pending application Ser. No. 467,468. Briefly, each rear post 42 is provided with channels 66 in side-by-side relation for the respective rear glass panels 64. The upper rear rail 26 is provided with side-by-side channels 68 for the upper edges of the bypassing rear glass panels 64, as shown in FIG. 3 of the drawings. The lower rear rail 36, as shown in FIG. 3, is provided with an upwardly-facing channel 70 in which is seated a track member 72 extending longitudinally of the channel 70 and provided thereon with parallel tracks 74 for rollers 76 carried by H-section members 78 supporting the lower edges of the bypassing rear glass panels 64.

As disclosed in more detail in my aforementioned co-pending patent applications, the edges of the various glass panels mentioned are set in plastic channels pressed into the corresponding channels in the various frame members. These plastic channels are designated by the numeral 80 and serve to hold the various glass panels firmly in place in a very simple manner conducive to easy installation since no glazing compounds, or the like, are required. The channels 68 in the upper rear rail 26 contain similar plastic channels 82 slidably guiding the upper edges of the bypassing rear glass panels 64. The channels 66 in the rear posts 42 contain elastomeric bumper strips 84 for cushioning the bypassing rear glass panels 64 as they are moved into their closed positions.

5

Each of the various frame members, i.e., each of the upper rails 24, 26 and 28, the lower rails 34, 36 and 38, and the posts 40 and 42, is provided with a longitudinal socket therein extending from one end thereof to the other, the sockets in the various rails being identified by the numeral 90 and the sockets in the posts by the numeral 92. The corner connectors 44 are provided with two perpendicularly arranged horizontal prongs 94 which fit snugly within the ends of the sockets 90 in the various rails. The corner connectors 44 are also provided with vertical prongs 96, perpendicular to the horizontal prongs 94, which are snugly inserted into the ends of the sockets 94 in the posts 40 and 42. The various rails are secured to the prongs 94 by screws 98, FIGS. 3 and 4. The posts 40 and 42 are secured to the corner-connector prongs 96 by screws 100 or 102, FIG. 2, the screws 144 being diagonally oriented and the screws 102 being concealed within the rear channels 66 in the rear posts 42.

The posts and rails all have square-cut ends, formed simply by sawing stock lengths to the desired lengths, which engage corresponding abutment surfaces 104 and 106, best shown in FIG. 5, on the corner connectors 44. The various post and rail abutment surfaces 104 and 106 are parallel to the corresponding square-cut post and rail ends. The various posts and rails are externally flush with the corner connectors 44. The manner in which each corner connectors 44 interconnects the corresponding post end and rail ends is more fully disclosed in my co-pending application Ser. No. 467,468, attention being directed thereto for a more detailed description.

All of the foregoing structure of the showcase 20 is generally similar to that disclosed in my aforementioned co-pending applications, the principal difference, and a very important one, being that the corner connectors 44 are employed to interconnect the ends of the lower rails 34, 36 and 38 and the lower ends of the posts 40 and 42, as well as the ends of the upper rails 24, 26 and 28 and the upper ends of the posts 40 and 42. Thus, the structure of the showcase frame is substantially independent of the showcase floor to be described hereinafter, which is important for reasons hereinafter suggested and to be discussed in more detail hereinafter.

An important feature of the invention is that the lower front, rear and end rails 34, 36 and 38 are respectively provided with integral channels 114, 116 and 118 which face inwardly relative to the rectangle defined by these lower rails. The channels 114, 116 and 118 are, as best shown in FIG. 3, defined by upper flanges substantially flush with the tops of these rails and by lower flanges spaced upwardly from the bottoms of these rails. As will be apparent from FIG. 2 of the drawings, it is necessary 118 on the lower end rails 38 to interfit them with the to cut off the ends of the flanges forming the channels flanges forming the channels 114 and 116 on the lower front and rear rails 34 and 36.

The showcase 20 includes a rectangular showcase floor 120 the edges of which are received in and completely enclosed and concealed by the corresponding channels 114, 116 and 118. If desired, the showcase floor 20 may be secured in place within the channels 114, 116 and 118 by screws 122 extending upwardly through some or all of the lower flanges of these channels into the showcase floor.

With the foregoing construction, the showcase floor 120 is not a structure element of the showcase frame. Consequently, it is unnecessary to perform any manufacturing operations on the showcase floor, such as sawing operations, mortising operations, or the like. This reduces labor costs in manufacturing the showcase 20, which is an important feature.

Also, the showcase floor 120 may simply be a rectangular piece of any suitable material, such as relatively heavy plywood. In the particular construction illustrated, the channels 114, 116 and 118 are three-quarters of an inch in internal width so that the showcase floor 120

6

may be made of three-quarter inch plywood. The edges of the plywood showcase floor 120 may be left completely unfinished since such raw or unfinished edges are completely enclosed and concealed by the various channels 114, 116 and 118. This also results in substantial labor savings in manufacturing the showcase 20.

It will be noted that the tops of the tracks 74 are flush with the top of the showcase floor 120. This eliminates obstructions, makes cleaning easier, and the like, as hereinafter pointed out in more detail.

The foregoing features of the present invention are not limited to the relatively shallow, overhanging showcase 20, but may be incorporated in showcases of any desired height.

Showcase 130, FIGS. 6 and 7

The showcase 130 of FIGS. 6 and 7 is very similar to the showcase 20 so that only the differences will be described.

The showcase 130 is intended for displays in foyers, museums, exhibits, and the like, and comprises a relatively shallow unit mountable on an elevated pedestal 132 which is larger than the showcase. As shown in FIG. 7, the showcase 130 is provided with a floor 134, which may be a piece of plywood, suitably permanently secured to the top of the pedestal 132, as by screws 136. Opposed lower rails 138 of the showcase 130 are provided with external, outwardly projecting, longitudinal flanges 140 serving as handles for lifting the showcase into and out of position relative to the fixed floor 134. The opposed lower rails 138 are also provided with inner, inwardly projecting longitudinal flanges 142 one of which is adapted to fit into a slot 144 in one edge of the floor 134. The other flange 142 is adapted to be engaged by an arm 146 of a cam lock 148 mounted on the top wall of the pedestal 132 and accessible from beneath such top wall. It will be noted that the arm 146 of the cam lock 148 overlies the corresponding inner flange 142 when in locked position.

Thus, the cam lock 148 and the slot 144 in the floor 134 cooperate with the inner flanges 142 to secure the opposed lower rails 138 of the showcase 130 to the floor 134, thereby preventing unauthorized removal of the showcase and unauthorized access to articles displayed therein. As will be apparent, the showcase 130 may be disengaged from the floor 134 readily by unlocking the cam lock 148, and then sliding the showcase 130 slightly to disengage the opposite inner flange 142 from the floor 134. Connection of the showcase 130 to the fixed floor 134 involves simply a reversal of these steps.

In all other respects, the showcase 130 is virtually identical to the showcase 20 so that no further description is required.

Showcase 150, FIG. 8

The showcase 150 is virtually identical to the showcase 20 and only the differences will be described.

In the showcase 150, the showcase-floor-receiving channels 114, 116 and 118 are not used, each being replaced by an inwardly facing, longitudinally extending flange 152 corresponding to the upper flange of the corresponding channel 114, 116 or 118. In this case, the showcase floor 120 is fastened directly to the undersides of the flanges 152 by screws 154. Again, the edges of the showcase floor 120 are completely concealed so that no finishing thereof is necessary. Also, no manufacturing operation on the showcase floor 120 are necessary since it is not a structural element of the frame of the showcase 150. Thus, the showcase 150 has all of the advantages of the showcase 20, and may be used whenever the exposed heads of the screws 154 are not objectionable.

An incidental difference incorporated in the showcase 150 is that the track member 72 is installed in the channel 70 in the lower rear rail 36 in an inverted position, the bypassing rear glass panels 64 having their lower edges

slidable in plastic channels 158 seated on the upper surface of the inverted track member 72. The latter has a longitudinal flange 162 which projects upwardly between the channels 158 to separate them.

In all other respects, the showcase 150 is identical to the showcase 20 so that no further description is necessary.

Showcase 200, FIGS. 9 to 11

The showcase 200 illustrated in FIGS. 9 to 11 is also substantially identical to the showcase 20 in most respects so that only the differences will be described. For convenience, the various parts of the showcase 200 are identified by reference numerals higher by two hundred than those used to identify corresponding parts of the showcase 20.

The main difference between the showcase 200 and the showcase 20 is that the former, instead of having bypassing rear glass panels 64 to provide access to the interior thereof, is equipped with a hinged front door 202, such door replacing the front glass panel 48 of the showcase 20. More particularly, the front door 202 is provided with a peripheral frame 204 of channel-shaped cross section containing a glass panel 206. One vertical edge of the frame 204 is connected to the corresponding front post 240 by a suitable hinge 208. The opposite edge of the frame 204 carries a handle 210 which may be equipped with a suitable latch or lock, not shown, engageable with the opposite front post 240. Since the fixed front glass panel 48 of the showcase 20 is omitted in the showcase 200, the front rails 224 and 234 and the front posts 240 are not provided with channels corresponding to the channels 50, 52 and 54.

In all other respects, the showcase 200 is substantially identical to the showcase 20 so that no further description is necessary.

I claim as my invention:

1. In a showcase frame, the combination of:

- (a) four lower rail members arranged in a rectangle;
- (b) four upper rail members arranged in a rectangle above the rectangle defined by said lower rail members;
- (c) four post members respectively extending between corresponding corners of the rectangles defined by said upper and lower rail members;
- (d) said post members respectively having lower ends in corner-forming relation with adjacent ends of adjacent ones of said lower rail members;
- (e) said post members respectively having upper ends in corner-forming relation with adjacent ends of adjacent ones of said upper rail members;
- (f) eight corner connections each interconnecting one end of one of said post members and the adjacent ends of adjacent ones of said rail members; and
- (g) said lower rail members respectively including longitudinally extending flanges which face inwardly relative to the rectangle defined by said lower rail members and which are respectively adapted to have connected thereto corresponding edges of a rectangular showcase floor disposed within the rectangle defined by said lower rail members.

2. A showcase frame as defined in claim 1 wherein said lower rail members respectively include longitudinally extending channels which face inwardly relative to the rectangle defined by said lower rail members and which are respectively adapted to receive therein and to

completely enclose and conceal corresponding edges of the rectangular showcase floor.

3. A showcase frame as set forth in claim 2 wherein each of said floor-edge receiving channels is formed by an upper flange on the corresponding lower rail member and by a lower flange on and spaced upwardly from the bottom of the corresponding lower rail member.

4. A showcase frame as defined in claim 2 wherein:

- (a) each of said post and rail member is provided with a longitudinal socket therein extending from one end thereof to the other; and
- (b) each of said corner connections includes three prongs respectively aligned with and plugged into said sockets in the corresponding post-member and rail-member ends.

5. A showcase frame according to claim 4 wherein said post and rail members have square-cut ends and wherein each of said corner connectors has three abutment surfaces respectively parallel to and engaged by the square-cut ends of the corresponding post and rail members in abutting relation.

6. A showcase frame as defined in claim 5 including means securing the ends of said post and rail members to said corner-connector prongs, respectively, comprising screws extending through said ends of said post and rail members into engagement with said corner-connector prongs.

7. In a showcase frame, the combination of:

- (a) four lower rail members arranged in a rectangle;
- (b) four upper rail members arranged in a rectangle above the rectangle defined by said lower rail members;
- (c) four post members respectively extending between corresponding corners of the rectangles defined by said upper and lower rail members;
- (d) said post members respectively having lower ends in corner-forming relation with adjacent ends of adjacent ones of said lower rail members;
- (e) said post members respectively having upper ends in corner-forming relation with adjacent ends of adjacent ones of said upper rail members;
- (f) each of said post and rail members having longitudinal sockets therein extending from one end thereof to the other;
- (g) eight three-pronged corner connectors each having the prongs thereof respectively aligned with and plugged into said sockets in one end of one of said post members and in the adjacent ends of adjacent ones of said rail members; and
- (h) means for securing a rectangular showcase floor to at least some of said lower rail members.

References Cited

UNITED STATES PATENTS

1,870,534	8/1932	Skoogh	312-140
3,150,903	9/1964	Chapman et al.	312-140 XR
3,346,310	10/1967	Diack	312-140
3,365,257	1/1968	Diack	312-140

CASIMIR A. NUNBERG, Primary Examiner

U.S. Cl. X.R.

312-257

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,494,686 Dated February 10, 1970

Inventor(s) Arthur G. Diack

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

- Column 2, line 32, "lower" should be --upper--;
- Column 2, line 68, "ike" should be --like--;
- Column 5, line 16, "144" should be --100--;
- Column 5, line 27, "connectors" should be --connector--;
- Column 5, line 41, "hereinafter" should be --hereinbefore--
- Column 5, line 52 & 54, insert before "118" --to cut off the
ends of the flanges forming the
channels-- (printed in line 55);
- Column 5, line 59, "20" should be --120--;
- Column 8, line 9, "member" should be --members--;

SIGNED AND
SEALED

JUL 21 1970

(SEAL)

Attest:

Edward M. Fletcher, Jr.
Attesting Officer

WILLIAM E. SCHUYLER, JR.
Commissioner of Patents