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3,537,199

DISPLAY SYSTEM

Filed March 24, 1969

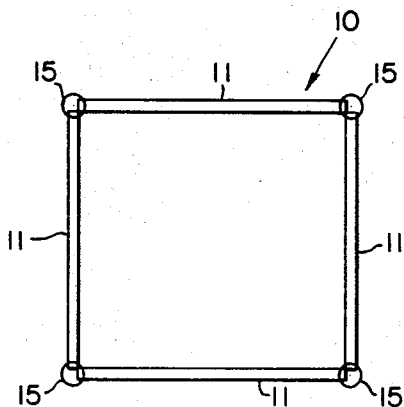


FIG. 1

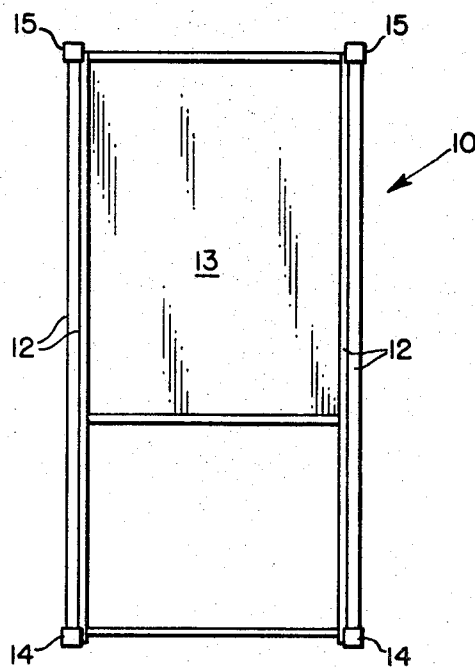


FIG. 2

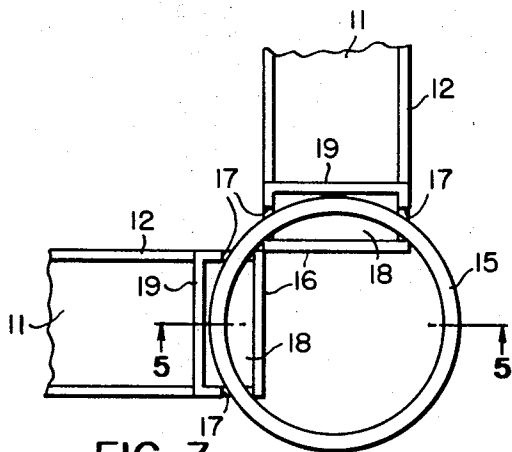


FIG. 3

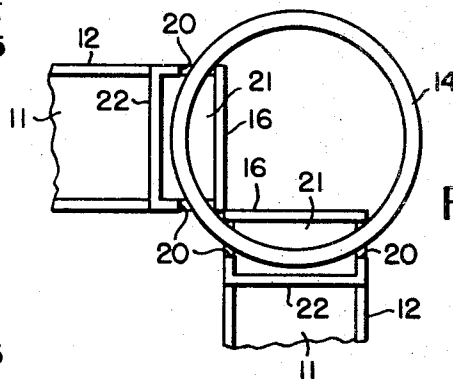


FIG. 4

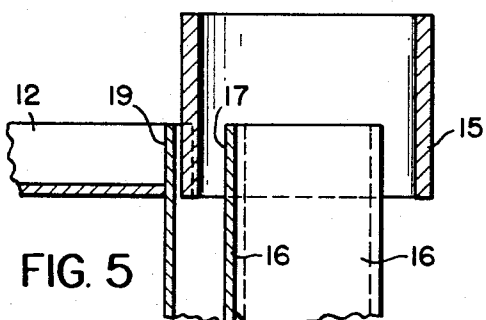


FIG. 5

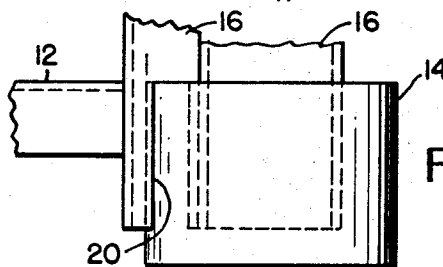


FIG. 6

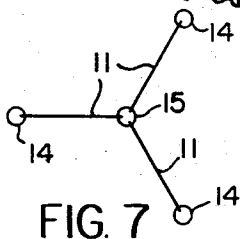


FIG. 7

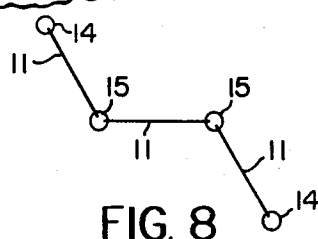


FIG. 8

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3,537,199

DISPLAY SYSTEM

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13 Claims

## ABSTRACT OF THE DISCLOSURE

Generally plane, free-standing display panels have corner slots extending vertically near their side edges and rings that fit in the slots to hold the panels together. A bottom ring rests on the floor with bottom slots of adjacent panels astraddle the ring, and a top ring rests in the top slot near these adjacent side edges to hold the display together and support it for standing freely.

## SUMMARY OF THE INVENTION

Display systems of free-standing panels are commonly used for art work, advertisements and exhibits. A large part of the expense of such panels is disassembly, moving and assembling them in the desired display arrangements with the panels secured together so they stand freely. The objects of the invention include simplifying the assembly of display panels to reduce the time and cost of setting up, taking down and moving display systems. The inventive system offers a simple, economical attractive, and versatile display panel assembly that is quickly and easily set up in any desired arrangement and dismantled with equal facility.

The generally plane panels of the inventive display system have corner slots extending vertically near their side edges and opening at the tops and bottoms of the panels. A pair of panels are then placed with their side edges adjacent, and each of the bottom slots near such side edges is rested astraddle a ring. Then another ring is placed in the top slots near the adjacent edges and the panels are connected together for orientation at any desired angle. The top and bottom rings are preferably cylindrical and of the same size and shape, and the rings are preferably taller than the bottom slots so that the panels rest on rings. By placing rings in slots as the panels are set up a display is quickly arranged and can be dismantled merely by removing top rings and lifting the panels off the bottom rings.

## DRAWING

FIG. 1 is a plan view of an illustrative embodiment of the inventive display system;

FIG. 2 is an elevation of the display system of FIG. 1;

FIG. 3 is a plan view of a fragment of a top corner assembly of the display of FIG. 1;

FIG. 4 is a bottom view of a fragment of a corner assembly of the display system of FIG. 1;

FIG. 5 is a cross section of the corner assembly of FIG. 3 taken along the line 5-5 thereof;

FIG. 6 is an enlarged fragmentary elevation of a lower corner assembly of the display system of FIG. 2; and

FIGS. 7 and 8 are schematic plan representations of various display arrangements possible with the inventive system.

## DETAILED DESCRIPTION

The display system 10 of FIG. 1 includes four generally plane panels 11 arranged in a square. Each of the panels includes frame members 12, preferably formed of extruded aluminum and a display board 13 held by the frame members 12 for supporting display material. Panels 11 are held together and supported by bottom rings

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14 and top rings 15. The details of such assembly are best shown in FIGS. 3-6.

The top corner assembly of FIGS. 3 and 5 show top ring 15 holding together two panels 11 at right angles. The frame members 12 of panels 11 have their side edges 16 adjacent each other inside of ring 15. Top slots 17 are formed in each frame member 12 to open at the top of panel 11 and extend vertically downward in the region of side edges 16. Ring 15 rests in each slot 17 between side edges 16 and interior walls 19, and the space 18 in the interior of slots 17 between walls 16 and 19 accommodates the curvature of ring 15. Ring 15 thus holds side edges 16 of panels 11 within the scope of the inside of ring 15 to hold panels 11 together.

The bottom assembly views of FIGS. 4 and 6 show panels 11 held together by bottom rings 14. The frame members 12 of panels 11 have slots 20 formed through the sides of frames 12 near side edges 16 to open into spaces 21 between side edges 16 and interior walls 22. Slots 20 open at the bottom of panels 11 and extend vertically in the regions of side edges 16. The spaces 21 between side edges 16 and interior walls 22 accommodate the curvature of bottom ring 14 in slots 20.

Bottom ring 14 is preferably taller than the height of slots 20 so that frames 12 rest on the top of bottom ring 14 with slots 20 astraddle ring 14 and ring 14 rests on a floor or other support under panels 11. Panels 11 can be moved around the perimeter of ring 14 to be set at any desired angle.

Top rings 15 are preferably substantially taller than the depth of top slots 17 to extend well above the tops of panels 11. This allows top rings 15 to serve as bottom rings supporting panels 11 superposed over lower panels 11 with bottom slots 20 resting astraddle top rings 15. Such stacking of panels 11 is simple and secure with the inventive connector rings.

FIGS. 7 and 8 represent two of a multitude of arrangements of panels 11 relative to connecting top rings 15 and bottom rings 14. Squares, rectangles regular and irregular polygons, zigzag patterns circles, Y's straight lines in combination with angles and other patterns are all possible.

Bottom rings 14 and top rings 15 are preferably identical in size and shape and are preferably cylindrical as illustrated. The diameter of rings 14 and 15 is substantially greater than the thickness of frames 12 of panels 11, and the radius of rings 14 and 15 is preferably substantially greater than the distance between the inside of slots 17 or 20 and the outside of side edges 16. This allows plenty of scope for rings 14 and 15 to extend beyond the connected edges of panels 11 to receive additional panels. Preferably at least 4 panels can be connected by a single ring, and the larger the ring, the more panels it can connect.

The illustrated proportions of panel frames 12 and rings 14 and 15 are preferred for forming a tightly closed corner between two panels 11 disposed at right angles. Also, slots 17 and 20 are preferably sized relative to the thickness and curvature of rings 14 and 15 for a snug fit between rings and panels to eliminate looseness, wobbling, or sloppiness in the joints.

In assembling the inventive display system, a pair of rings 14 are placed on the floor approximately where desired, and the bottom slots of a panel are rested astraddle each of the rings 14. Another panel is arranged with its edge adjacent the first panel and its bottom slot resting on one of the rings 14 supporting the initial panel. Then a top ring 15 is dropped into the top slots near the adjacent side edges of such panels, and they are thereby connected to stand freely. A bottom ring is placed in the slot under the unconnected edge of the second panel and additional

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panels can be added as desired. To disassemble the display system it is merely necessary to remove top rings 15 as the panels they connect are lifted off bottom rings 14.

Persons wishing to practice the invention should remember that other embodiments and variations can be adapted to particular circumstances. Even though one point of view is necessarily chosen in describing and claiming the invention, this should not inhibit broader or related applications within the spirit of the invention. For example, connecting rings can have shapes other than cylindrical, and slots of different sizes and shapes can be formed in different ways in the frames. Also, display panels can hold shelves, boxes, audio or visual equipment, or other structure, and panels can be stacked or arranged in a wide variety of ways.

I claim:

1. A display system of a plurality of vertical, generally plane panels standing freely on a support and comprising:

- (a) the corners of said panels having slots;
- (b) the bottom ones of said slots opening at the bottoms of said panels;
- (c) the top ones of said slots opening at the tops of said panels;
- (d) said slots extending vertically in the region of the side edges of said panels;
- (e) at least a pair of said panels being oriented at an angle to each other and having adjacent side edges;
- (f) a bottom ring standing on said support;
- (g) said pair of panels having each of said bottom slots in the region of said adjacent side edges astraddle said bottom ring; and
- (h) a top ring resting in each of said top slots in the region of said adjacent side edges.

2. The display system of claim 1 wherein the depth of said bottom slots is less than the height of said bottom ring so said panels rest on said bottom ring.

3. The display system of claim 1 wherein said top and bottom rings are the same size and diameter.

4. The display system of claim 1 wherein said top and bottom rings are cylindrical.

5. The display system of claim 1 wherein the diameter

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of said rings is substantially greater than the thickness of said panels.

6. The display system of claim 1 wherein the depth of said top slots is substantially less than the height of said top ring so the portion of said top ring extending above said panel can serve as one of said bottom rings for a superposed one of said panels.

7. The display system of claim 1 wherein said bottom and top slots and said bottom and top rings are dimensioned for respective snug fits.

8. The display system of claim 1 wherein the radius of said rings is substantially greater than the distance between said slots and said side edges.

9. The display system of claim 8 wherein the diameter of said rings is substantially greater than the thickness of said panels.

10. The display system of claim 9 wherein said rings are cylindrical and said top and bottom rings are the same size and diameter.

11. The display system of claim 10 wherein the depth of said bottom slots is less than the height of said rings so said panels rest on said bottom ring.

12. The display system of claim 11 wherein the depth of said top slots is substantially less than the height of said rings so said bottom slots of superposed panels can rest on said top ring.

13. The display system of claim 12 wherein said slots and said rings are dimensioned for respective snug fits.

#### References Cited

##### UNITED STATES PATENTS

|           |         |             |           |
|-----------|---------|-------------|-----------|
| 1,706,388 | 3/1929  | Ashkenas.   |           |
| 2,275,942 | 3/1942  | Barry       | 160—229 X |
| 2,865,124 | 12/1958 | Mortellito. |           |
| 2,970,396 | 2/1961  | Worrell     | 160—135 X |
| 3,204,689 | 9/1965  | Howell      | 160—135   |

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