Sept. 29, 1964 E. GURIAN 3,150,778

DISPLAY RACK

Filed Feb. 20, 1963 2 Sheets-Sheet 1

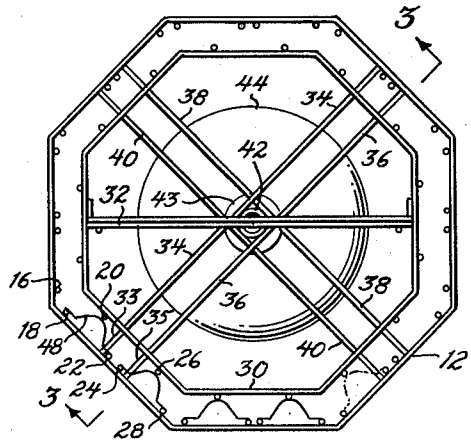


Fig. 2.

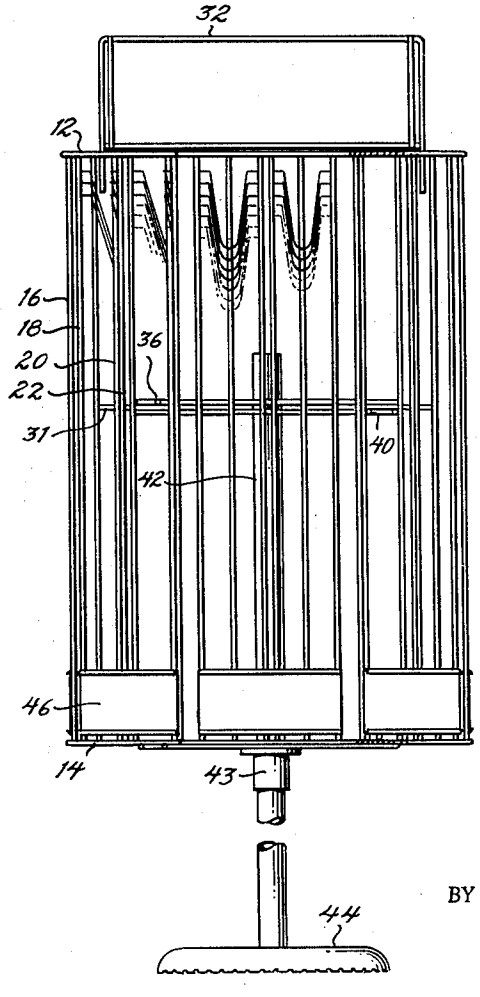


Fig. 1.

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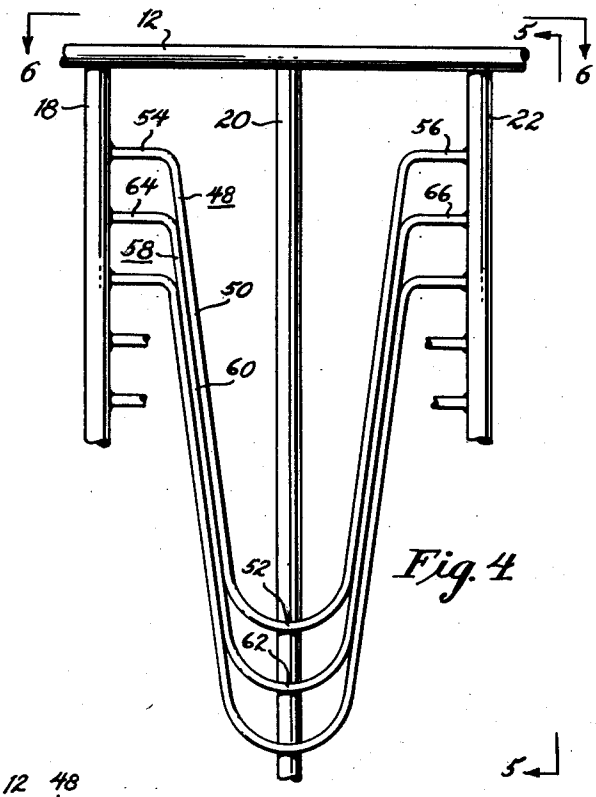


Fig. 4

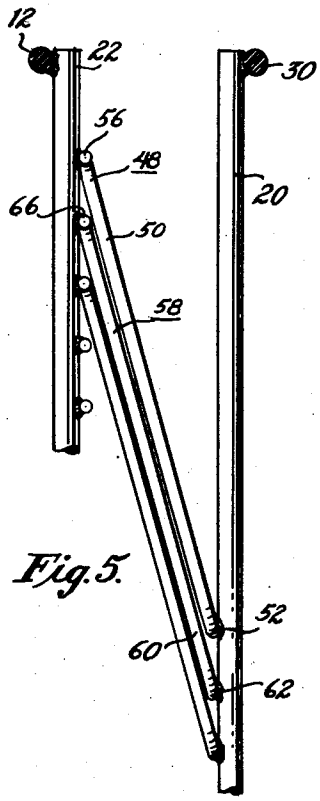


Fig. 5.

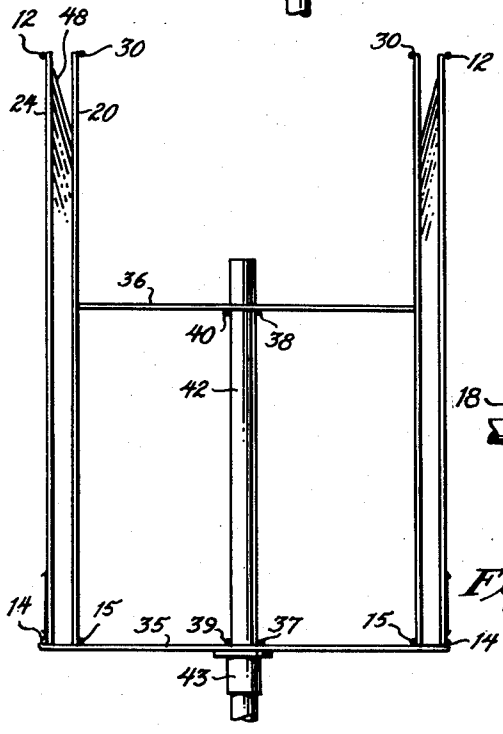
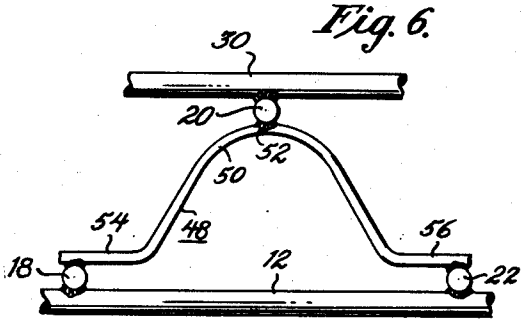


Fig. 3.

Fig. 6.



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DISPLAY RACK

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6 Claims. (Cl. 211—49)

In general, this invention relates to a new and improved display rack and, more particularly, to a display rack that is adapted to hold a large number of display materials in a compact manner at very low cost.

It is essential when displaying thin flexible materials, such as textiles, to provide a rack which will give support to the textile materials without the loss of observability or unnecessary increases in cost.

For this reason, the present invention contemplates a display rack capable of supporting a large number of cards on which are wrapped fabric materials in a manner whereby the fabric material is supported in place and the maximum number of cards can be displayed in a minimum space. Additionally, the display rack of the present invention can be constructed at minimum cost and will be extremely light and easy to handle.

Therefore, it is the general object of this invention to provide a new and improved display rack which is both lightweight and inexpensive to manufacture.

A further object of this invention is to provide a display rack which may be utilized for the showing of flexible materials which will be structurally sound without any corresponding loss in viewability.

Another object of this invention is to provide a new and improved display rack into which display materials can be easily inserted by the provision of line contact on all surfaces.

Other objects will appear hereinafter.

For the purpose of illustrating the invention, there is shown in the drawings a form which is presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

FIGURE 1 is a front elevational view of the display rack of the present invention.

FIGURE 2 is a top plan view of the display rack of FIGURE 1.

FIGURE 3 is a cross sectional view of the display rack of FIGURE 2 taken along lines 3—3 with all parts not located near the cross section lines being omitted for purposes of clarity.

FIGURE 4 is an enlarged fragmentary side elevational view of a portion of the display rack of FIGURES 1–3.

FIGURE 5 is a right side cross sectional view of the portion shown in FIGURE 4 taken along lines 5—5.

FIGURE 6 is a top plan view of the portion shown in FIGURE 4 taken along lines 6—6.

In the drawings, the display rack of the present invention has been generally designated by the numeral 10.

The rack 10 includes an upper outer annular ring 12 and a lower outer annular ring 14. The annular rings 12 and 14 are congruent equilateral polygons which are spaced in parallel planes from each other by parallel vertical rods 16, 18, 22, 24, 28, etc. It will be understood that any equilateral polygonal ring may be utilized as the exterior of the display rack. In the embodiment shown in the drawings, the rings 12 and 14 are equilateral octagons.

Four vertical rods 18, 22, 24 and 28 are shown as supporting one side of the octagonal ring 12 from the corresponding side of the octagonal ring 14. For purposes of clarity, only this one side of the octagonal rings will be discussed in detail, it being understood that all other sides are exactly similar thereto.

A second upper equilateral polygonal ring 30 geometrically similar with the ring 12 is provided having the same center as the ring 12. The annular ring 30 is connected to a congruent equilateral polygonal lower ring 15 by vertical rods 20 and 26 extending the length of the display rack as shown, vertical rods 20 and 26 are spaced intermediate rods 18 and 22, and rods 24 and 28 respectively.

A top advertising support member 32 is provided mounted between a pair of opposite sides of the inner octagonal ring 30. The advertising support 32 is adapted to have printed material supported thereon for informing persons as to the contents of the display rack.

A central octagonal ring 31 exactly congruent to rings 30 and 15 is also provided secured to the vertical rods 20, 26, etc. A pair of horizontal struts 34 and 36 are secured to opposite sides of the central inner octagonal ring 31. A similar pair of horizontal struts 38 and 40 are placed perpendicular to struts 34 and 36 and secured at their opposite ends to parallel sides of the central ring 31. The struts 34, 36, 38 and 40 are spaced so they form a square at the center through which passes a vertical supporting post 42. The post 42 gives balance to the display rack 10.

Additionally, there are provided struts 33, 35, 37 and 39 similar to the struts 34, 36, 38 and 40 through which vertical post 42 passes. The struts 33, 35, 37 and 39 are secured to suitable sides of lower octagonal ring 14. A suitable flange support 43 mounted on post 42 supports the display rack 10. The struts 33, 35, 37 and 39 form a square at the center thereof whose area is less than the area of the flange 43 so that they can be supported thereby. The post 42 is mounted on a suitable stand 44.

There are also provided on the vertical rods 18, 22, 24 and 28 display card holders 46 adjacent the bottom annular ring 14. These display card holders 46 are placed one to a side so that suitable advertising material can be included which describes the material being displayed in the particular side immediately above the display card holder 46.

As stated previously, only one side of the display rack 10 will be discussed for purposes of clarity, it being understood that the other sides are exactly similar thereto. The side to be described is shown in FIGURES 4, 5 and 6. As shown, there is mounted a U-shaped retainer between the planes of annular rings 12 and 30. Annular ring 12 has a pair of vertical rods 18 and 22 extending down to the lower annular ring 14. The inner annular ring 30 has a vertical rod 20 extending towards rings 31 and 15 as described previously. A second set of vertical rods 24 and 28 are secured to the one side of ring 12 and a second vertical rod 26 is also secured to the inner ring 30. It will be understood that the rods 22 and 24 could be combined into a single rod performing the functions of these two rods.

The U-shaped retainer 48 includes an angularly distending U-shaped portion 50 secured at the lowermost point 52 thereof to the inner support rod 20. The two uppermost ends of the U-shaped retainer 48 are extensions 54 and 56 parallel to the ring 14 and secured, as by welding, to the spaced vertical support rods 18 and 22.

A similar U-shaped retainer 58 is provided immediately below the U-shaped retainer 48 and secured in the same manner to outer vertical rods 18 and 22 and inner vertical rod 20. The U-shaped retainer 58 also includes an angularly distending U-shaped portion 60 whose lowermost point 62 is secured to vertical rod 20 and whose outermost extensions 64 and 66 are secured to rods 18 and 22 respectively. Similar U-shaped retainers are spaced immediately below the retainers 48 and 58 in the same manner as was discussed with respect to these latter retainers. The space between the retainers 48 and

58 forms a pocket within which display material may be placed. The U-shaped retainers provide top and bottom support for the display material while the rods 18, 20 and 22 prevent the material from sliding out of its predetermined slot. It should be noted that the material is placed within the slot with only line contact provided by the U-shaped retainers.

Additionally, the U-shaped retainers are not obstructed by the display card holders 46 as the first of these retainers is immediately above these holders further, display card holders 46 have a height less than the distance between the lowermost portion of the U-shaped retainers and the uppermost portion thereof. Although two sets of U-shaped retainers have been shown for each side of the polygonal ring display rack, it can easily be understood that more or less sets of such U-shaped retainers may be utilized within the scope of this invention.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

1. A display rack comprising top and bottom equilateral polygonal outer rings, top and bottom inner rings geometrically similar to said outer rings, a pair of spaced parallel outer rods fixedly secured between said top and bottom outer rings on one similar side of said top and bottom rings, an inner support rod spaced intermediate said pair of spaced parallel outer rods and fixedly secured between said top and bottom inner rings, and at least two retainers, said retainers having their lowermost portions secured to said inner post and their uppermost portions secured to said outer posts.

2. The display rack of claim 1 wherein said retainers include U-shaped members, the lowermost portion of said U-shaped member being connected to said inner rod, the uppermost portions of said U-shaped member being connected to said spaced parallel outer posts, said two retainers being in spaced parallel relation, the uppermost portion of said retainer being in a higher plane than the lowermost portion of said retainer.

3. The display rack of claim 2 including additional parallel retainers extending from said bottom inner and outer rings to said top inner and outer rings between said outer posts and said inner rod, and a display card holder, said display card holder being mounted on said outer rod immediately below the retainer closest to said bottom outer ring, said display card holder having a height less than the distance between the lowermost portion of said U-shaped member and the uppermost portion of said U-shaped member.

4. The display rack of claim 1 wherein all of said rings have an even number of sides, a first pair of cross struts extending between opposite parallel sides of said bottom inner and outer rings, a second pair of spaced cross struts extending between a second pair of opposite parallel sides of said inner and outer bottom rings, said first and second pairs of cross struts being angularly disposed with respect to each other, the crossover area of said first and second pairs of cross struts defining an opening, a vertical support post adapted to pass through said cross over area opening, a support for said support post, and a flange mounted on said support post immediately below said first and second pairs of cross struts, said flange having a horizontal area greater than the crossover area of said cross struts whereby said first and second pairs of cross struts are supported by said flange.

5. The display rack of claim 4 including a third inner equilateral polygonal ring congruent with said top and bottom inner rings connected to said inner support rod between said top and bottom inner rings, third and fourth pairs of spaced parallel cross struts similar to said first and second support struts respectively connected between opposite parallel sides of said third inner ring, said third and fourth pairs of cross struts defining a second crossover area at the point immediately above said first crossover area, said first and second crossover areas being equal, said vertical post extending through both of said crossover areas to provide stability for said display rack.

6. A display rack comprising top and bottom equilateral polygonal outer rings, top and bottom inner rings geometrically similar to said outer rings, a pair of spaced parallel outer rods fixedly secured between said top and bottom outer rings on one similar side of said top and bottom rings, an inner support rod spaced intermediate said pair of spaced parallel outer posts and fixedly secured between said top and bottom inner rings, and at least two U-shaped retainers, the closed end portions of said U-shaped retainers being connected to said inner post, the open end portions of said U-shaped retainers being connected to said spaced parallel outer posts, said two U-shaped retainers being in spaced parallel relation.

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