

[54] **ROTARY DISPLAY STAND**

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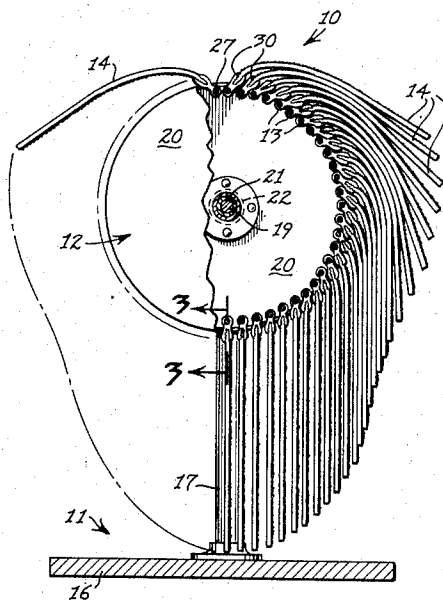
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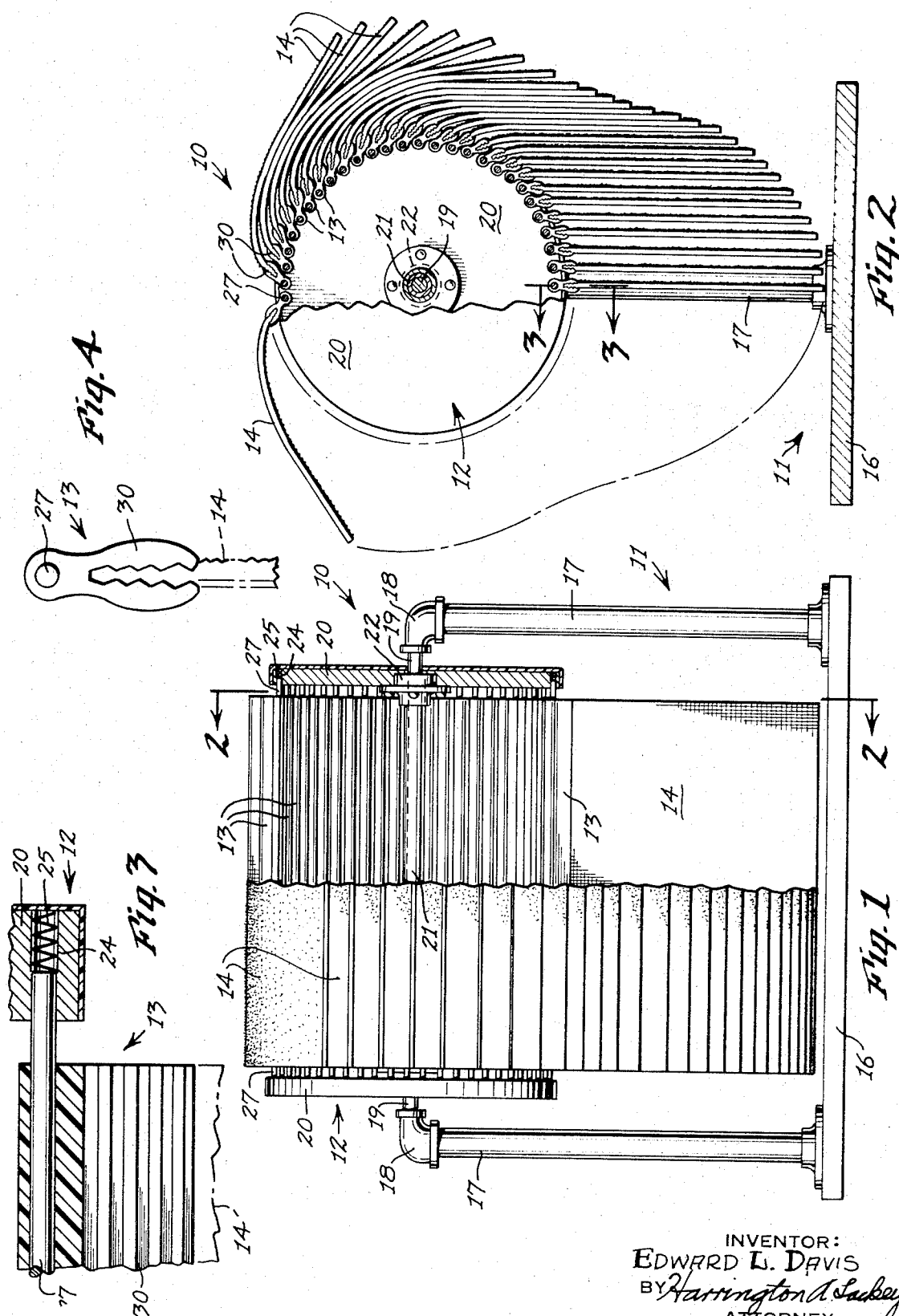
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ABSTRACT

A rotary display stand including a standard, a rotary support member, and depending article holders mounted in a circumferential path on said support member and adapted to freely swing relative to said support member.

6 Claims, 4 Drawing Figures





ROTARY DISPLAY STAND

BACKGROUND OF THE INVENTION

This invention relates to a display stand, and more particularly to a rotary stand for displaying dependent articles preferably of sheet material, such as carpet samples.

Heretofore, carpet samples have been displayed upon stands known as "waterfalls." In a "waterfall," the carpet samples are stacked vertically on top of each other, but staggered so that edge portions of all the stacked carpet samples can be observed. For a more complete view of a particular carpet sample, each of the samples stacked on top of the specific sample must be lifted.

SUMMARY OF THE INVENTION

The display stand made in accordance with this invention includes a standard and a rotary support member, generally in the form of a spool. The support member is rotatably mounted on the standard for free rotary movement about a horizontal rotary axis. Mounted circumferentially on the support member are a plurality of article holders, preferably elongated rods journaled in the opposed flanges of the rotary spool member. Each holder is provided with a pair of elastic or resilient jaws for releasably gripping one edge of the article so that the article freely depends from the holder.

The holders are preferably uniformly spaced circumferentially around the rotary axis of the support member so that the weight of the articles is balanced on each side of the rotary axis. The support member will therefore remain stable, or in a stationary position, until one of the top articles is manually swung from one side of the rotary axis to the other. Thus, the increase in weight on one side of the axis and the corresponding decrease in weight on the other side of the axis causes the support member to rotate slightly until the articles are again balanced about the rotary axis.

Thus, in order to observe a particular article, such as a carpet sample, all of the articles above the desired article are swung across the top of the rotary support member, causing the support member to gradually turn until the desired carpet sample is fully exposed adjacent the top of the support member.

It is also a feature of this invention that the article holders are removably secured to the rotary support member so that individual articles may be removed or replaced.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front elevation of the display stand made in accordance with this invention, with portions shown in section;

FIG. 2 is a section taken along the line 2—2 of FIG. 1;

FIG. 3 is an enlarged fragmentary section taken along the line 3—3 of FIG. 2; and

FIG. 4 is an enlarged end elevation of one of the holders, holding a carpet sample shown in phantom.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in more detail, the display stand 10 made in accordance with this invention includes a standard 11 rotatably supporting a rotary support member 12. Journaled in the rotary support member 12 circumferentially about the rotary axis are a plurality of article holders 13, each holder adapted to hold a dependent article, such as a carpet sample 14.

The standard 11 disclosed in FIGS. 1 and 2 includes a platform or base 16 upon which are mounted a pair of upstanding spaced posts 17. Fixed to the top of each post 17 is an elbow 18, both elbows of which are fixed to a transverse shaft 19.

Although the rotary support member 12 may be of various shapes and constructions, nevertheless it is specifically disclosed in the drawings as a spool-shaped member having a pair of spaced apart end flanges or discs 20, which are connected by a tubular sleeve 21 having an internal diameter slightly greater than the external diameter of the shaft 19 for concentrically receiving the same. Recessed within the inner face of each end flange 20 is a bearing 22 journaled upon the shaft 19 to provide rotary movement of support member 12 about the horizontal longitudinal axis of the shaft 19.

Spaced circumferentially about the rotary axis of the support member 12, and formed in the opposed inner faces of the end flanges 20, are a plurality of holder bearings in the form of holes or sockets 24. Preferably mounted in each socket 24 is a coil spring 25 or other resilient type of end bearing or plunger.

Each holder 13 preferably comprises an elongated rod 27, the length of which is slightly greater than the distance between the opposed faces of the flanges 20, but slightly less than the distance between the outer faces of the flanges 20. Moreover, the length of each rod 27 is slightly less than the combined length of the spacing between the opposed inner faces of the flanges 20 and the depth of one bearing or socket 24. This construction enables one end of the shaft 27 to be inserted into one socket 24 until the opposite end of the same shaft 27 clears the opposite inner face of the flange, so that the opposite end of the shaft 27 may be inserted in the opposing socket 24. Thus, both ends of the same shaft 27 will be received in opposed sockets 24 and urged toward an intermediate axial position by the opposed springs 25. Moreover, the opposite ends of each shaft 27 are received in the opposed sockets 24 for free rotary movement relative to the end flanges 20.

Formed upon each shaft 27 is an elongated gripping member 30 having a pair of opposed jaws preferably made of a resilient elastic material. The jaws of the gripping member 30 may be forced apart slightly to receive and resiliently engage an article, such as the edge portion of the carpet sample 14, as best disclosed in FIG. 4. As best disclosed in FIGS. 3 and 4, the opposing faces of the jaws of the gripping member 30 may be serrated in order to provide more effective holding surfaces.

As disclosed in FIG. 2, the shaft sockets 24 are arranged in a circle about the periphery of each flange disc 20. Preferably, the sockets 24 are equally spaced circumferentially of the shaft 19, and are also radially equidistant from the rotary axis of the support member 12.

In operating the stand 10, each holder 13 is preferably removed from the support member 12. The edge of an article, such as a carpet sample 14, is then forced between the opposed jaws of the gripping member 30 until the carpet sample 14 is firmly held by the gripping member 30. The gripping member 30 may be of any desired length, less than the total length of the shaft 27, yet long enough to adequately grip the edge of the supported article 14.

Instead of using the elongated gripping member 30, a plurality of shorter gripping members could also be fixed axially upon the shaft 27, if desired.

After the carpet sample 14 is secured to the holder 30 the shaft 27 is then inserted, one end at a time, into the opposed spring-loaded sockets 24, as previously described.

With only one holder 13 in position, the combined weight of the holder 13 and the carpet sample 14 will cause the rotary member 12 to rotate until that particular holder 13 occupies the lowest possible position, substantially vertically below the rotary axis, that is, the shaft 19.

This process is repeated for each holder 13 until all of the holders 13 are loaded with articles 14 and mounted in their respective sockets 24. The rotary support member 12 continues to rotate as each article 14 is loaded, continually balancing the weight until all of the carpet samples 14 are loaded on the stand 10, so that the loaded stand 10 will appear as it does in FIGS. 1 and 2.

It will be noted, particularly in FIG. 2, that each carpet sample 14 on the lower portion of support member 12 depends substantially vertically. However, the carpet samples 14, disposed in the upper quadrants of the support member 14, extend gradually more laterally as they approach the top of the stand 10. Thus, the uppermost carpet samples 14 are supported almost horizontally because of the support they receive from the subsequent lower layers of carpet samples 14.

By swinging or turning the upper layers of carpet samples 14 from one side of the vertical plane of the rotary axis 19 to the other, selected carpet samples 14 may gradually be elevated to the top for better visual inspection. Moreover, the edge portion of any carpet on the stand 10 may be observed because of the overlapping relationship of the carpet.

It will be seen that a display stand has been developed, particularly for displaying carpet samples, which displays at least a portion of every carpet on the stand 10 in any stationary position, and yet is easily manipulated to automatically elevate any desired carpet sample 14 toward eye level for visual inspection. Furthermore, more carpet samples 14 may be easily and compactly stored and displayed in less space than was previously possible by the conventional "waterfall" carpet display stands.

What is claimed is:

1. A rotary display stand comprising:
 - a. a standard,

- b. a rotary support member comprising a pair of spaced end discs having opposed inner faces coaxial with the rotary axis of said support member,
 - c. bearing means journaling said support member for free, non-driven, rotary movement on said standard, said rotary axis being horizontal,
 - d. a plurality of flexible sheet members, each sheet member having a top edge portion,
 - e. an elongated holder for each sheet member, each holder having opposite ends and being adapted to hold the top edge portion of a sheet member for depending support,
 - f. journal means spaced continuously circumferentially around the periphery of each of said inner faces for rotatably receiving the opposite ends of said holders, so that each top edge portion is freely rotatable about a horizontal axis relative to said discs,
 - g. said top edge portions being uniformly spaced continuously circumferentially of said discs so that the adjacent surfaces of the uppermost pair of sheet members held on said support are completely exposed upward to view and diverge laterally in opposite directions from the vertical plane through said rotary axis, and
 - h. means detachably mounting said holders in said corresponding journal means.
2. The invention according to claim 1 in which said standard comprises a base portion defining a horizontal plane, each of said sheet members having a top edge and a bottom edge and a uniform length between said top edge and said bottom edge, said length being less than the distance between said top edge and said horizontal plane when said sheet member is disposed at its lowermost position on said rotary support member, so that said rotary support member is free to rotate to a position in which the weight of said sheet members is balanced on opposite sides of the vertical plane containing said rotary axis each time a sheet member is moved from one side of said plane to the other.
 3. The invention according to claim 2 in which the width of each sheet member is less than the spacing between the inner faces of said discs.
 4. The invention according to claim 1 in which each holder comprises an elongated rod.
 5. The invention according to claim 4 further comprising a gripping member fixed on each of said rods, said gripping member having opposed elastic jaws adapted to receive and resiliently hold the top edge portion of said sheet member.
 6. The invention according to claim 4 in which each rod is of uniform length slightly greater than the distance between the inner faces of said discs, said detachable mounting means comprising an axial resilient member adapted to yield to the insertion of the corresponding end of said rod in said journal means, so that each rod is removably supported in said corresponding journal means.

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