United States Patent

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[54] POLE DISPLAY CONSTRUCTION

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[52] **U.S. Cl.** ..... **40/125 G**

[51] **Int. Cl.** **G09f 1/00**

[58] **Field of Search** ..... 40/125, 125 G, 125 H, 128, 40/145

[56] **References Cited**

UNITED STATES PATENTS

2,764,830	10/1956	Frey	40/125 G
2,882,630	4/1959	Frey	40/125 G
2,893,147	7/1959	Mollet	40/128
2,911,746	11/1959	Frey	40/128
2,960,785	11/1960	Kies	40/125 G

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[57] **ABSTRACT**

Improved banner assembly including an upright supporting pole member, banner means positioned on opposite sides of the pole each disposed between two horizontal members and rod means, spring loaded or not, disposed between each end of each horizontal member and a location on said upright supporting pole angularly disposed away from the side of the pole adjacent to that horizontal member.

10 Claims, 5 Drawing Figures

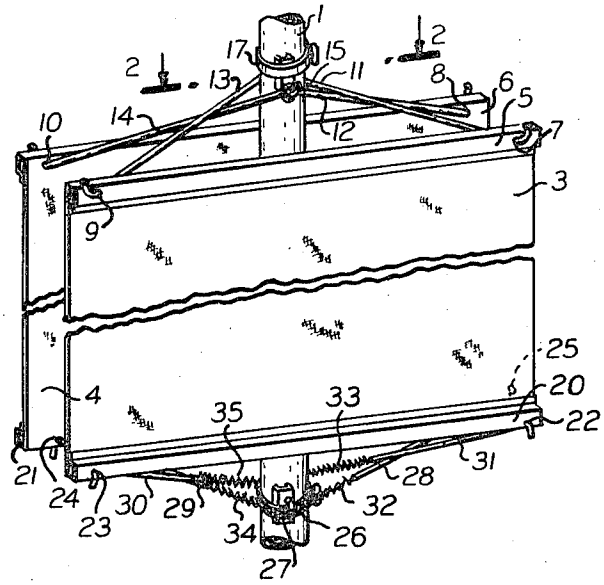


FIG. 1.

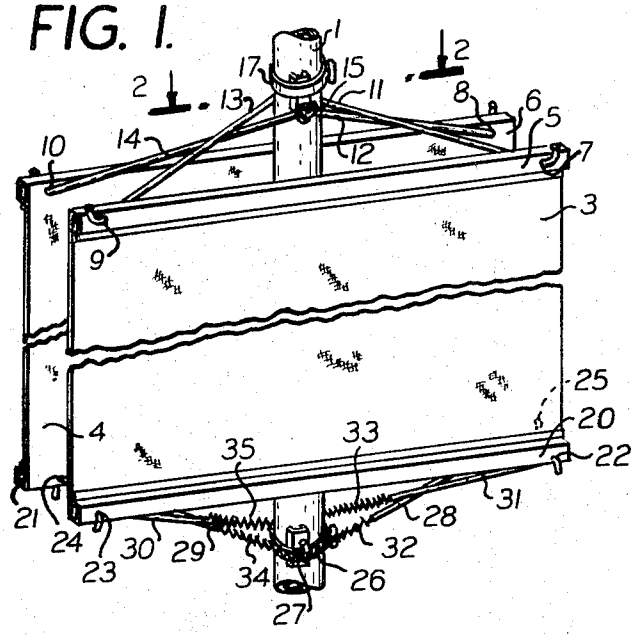


FIG. 2.

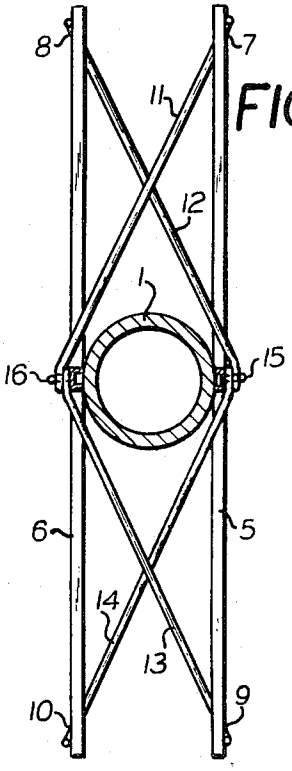


FIG. 3.

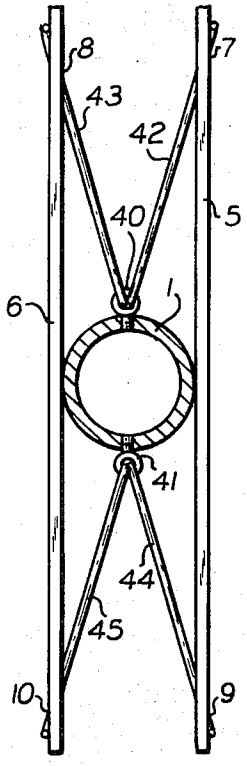


FIG. 4.

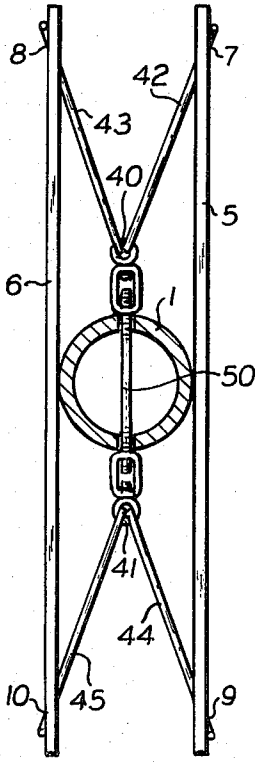
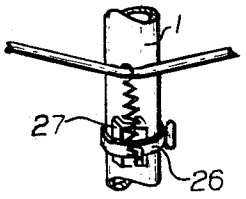


FIG. 1A.



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POLE DISPLAY CONSTRUCTION

This invention relates to articulated banner unit construction particularly adapted for use as a pole sign, and including two parallel spaced banners mounted on opposite sides of an upright pole extending between the banners.

The present state of the banner pole sign art is represented by U.S. Pat. Nos. 2,764,830; 2,960,785; 2,893,147; 2,961,787 and 2,882,630 all commonly assigned. Not only do these patents represent the current best literature on this subject, but they even represent and disclose presently used commercial technology.

It is an object of this invention to introduce a modified pole banner sign assembly and construction which is an improvement over the best industry now has to offer.

Other and additional objects will become apparent from a consideration of this entire specification including the claims and the drawing hereof.

In accord with and fulfilling these objects, the pole banner sign of this invention includes an upright supporting pole member, a banner positioned on at least one side of the pole disposed between upper and lower generally horizontal supporting members which may be integral with the banner or may be separate members, and rod means disposed between the ends of the upper and lower supporting members and the pole. One or more of the rods means may be spring loaded or one or more pairs of rod means in assembly may be spring loaded as shown in the prior art.

While in all instances both the published prior art and the actual industrial usage suggests and requires spacer members between two banners, mounted on opposite sides of a pole, to fix the banner spacing and to prevent the banners from being distorted by wind, the construction of this invention needs no spacer members per se. Even though this invention does away with the need for these spacers, it should be appreciated that they can be added to this construction if desired.

According to the prior art, the supporting rod means, or the hook **34** referred to in U.S. Pat. No. 2,764,830, extends from an end or intermediate position of attachment to an upper or lower horizontal supporting member in a plane which is generally parallel to the supporting member to a fixed anchor (hook bracket 27 in U.S. Pat. No. 2,764,830) on the same side of the pole as the banner. As a modification the corresponding element on the lower horizontal supporting member of the banner generally employs spring loading of some sort or may even be a different spring loaded construction.

According to this invention the same elements are used as in the prior art, except as noted above that the spacer rod members are no longer required, but the supporting rod or hook means is disposed between a portion of at least one of the supporting members, upper or lower, disposed away from the pole, preferably the ends of the upper supporting member, and a location on the pole circumferencially displaced away from the edge or surface of the pole which is adjacent the banner being supported. This construction gives a rigid triangular geometric configuration to the rod supporting means and the upper supporting member assembly with possibly the pole included in the geometry in a plane which is not parallel to the plane of the banner.

Understanding of this invention will be facilitated by reference to the accompanying drawing wherein:

FIG. **1** is a perspective view of a banner construction according to this invention;

FIG. 1A is a detail of a modification of the device shown in FIG. **1**.

FIG. **2** is a top view of this construction with the top part of the pole cut away looking in the direction of the arrows **2—2** in FIG. **1**; and

FIG. **3** and **4** are similar to FIG. **2** showing modified supporting assemblies according to this invention.

Referring now to the drawing and particularly to FIG. **1** there is shown a pole sign assembly including a pole **1** and two banners **3** and **4** mounted on opposite sides thereof. The upper support assembly includes two upper support members **5** and **6** attached to each banner, respectively. Apertures **7**, **8**, **9** and **10** are disposed at each end thereof. Rod means **11**, **12**, **13** and **14** are provided between each aperture and a suitable per se known bracket means **15** (a corresponding bracket means exists on the back side of the pole but is not seen in FIG. **1** - in FIG. **2** this other bracket is numbered **16**) which may be held on the pole with a clamp **17** or any other suitable means. It is within the scope of this invention to provide the two connecting rod means, for example **11** and **13** or **12** and **14**, as a single rod means with a suitable aperture or other conventional means for attachment thereof to the bracket **15** or **16**. It will be noted that the geometrically rigid triangle is formed among the supporting member **5** and the rod means **11** and **13**, and correspondingly between the supporting member **6** and the rod means **12** and **14**. This triangulation is important because it insures that the banners cannot rotate around the pole regardless of what wind forces are encountered.

This is not so in the triangular structure of the prior art (U.S. Pat. No. 2,764,830) because the banner and the supporting triangle are in the same plane and the whole plane can rotate about the pole thereby necessitating the there shown spacer rods.

The lower supporting assembly can duplicate the upper assembly described above, or it can be a prior art spring loaded construction, or, as shown in FIG. **1**, it can be an assembly according to this invention which is additionally spring loaded. Thus there are lower support members **20** and **21** with apertures **22**, **23**, **24** and **25** (shown in phantom) with clamp means **26** and bracket means **27** substantially similar to that described above with respect to the upper support assembly. Rod means **28**, **29**, **30** and **31** join the brackets to the apparatus. Additionally there is shown spring means **32**, **33**, **34** and **35** interposed between each rod means and its bracket. Alternately, a single composite rod means can be used, for example instead of rod means **28** and **29** a single rod can be used and if the bracket **27** is lowered, it can be attached to the apex of the single rod through a spring (see FIG. 1A).

FIG. **3** shows another triangulation support assembly where the brackets **40** and **41** are located on the sides of the poles between the banners and where the rods **42**, **43**, **44** and **45** join these brackets to the upper support members **5** and **6** through apertures **7**, **8**, **9** and **10**. The assembly has several geometrically rigid triangles, for example the rod **42**, the portion of the pole between the bracket **40** and the upper support member **5** and the portion of the upper support member **5** between the pole **1** and the aperture **7**. Three other similar triangles whose planes are not parallel to the planes of the banners exist to enforce rigidity.

In FIG. 4 the construction of FIG. 3 is repeated but instead of a clamp means about the pole 1 as shown at 17 in FIG. 1, there is provided a rod type clamp means 50 passing through the pole 1 and having the brackets 40 and 41 mounted on the ends thereof.

It may be desirable to apply some small amount of flexure and tension to the upper horizontal support members 5 and 6 by suitably slightly undersizing the support rods 11, 12, 13 and 14 or the like. This will cause the upper horizontal support members to bow slightly and thereby help to maintain the rigidity of the entire structure.

It is within the scope of this invention to use poles having substantially any cross section. Thus round poles, triangular poles, square poles, hexagonal poles, octagonal poles, etc, are all contemplated by this invention. The "triangle" referred to above between the rod means, the pole and the supporting means is to be considered with the pole surface as one leg of the triangle regardless of the exact number of individual surfaces which make up the pole surface. Similarly, if the supporting member is flexed and bowed, it still is one leg of the triangle. Still further, in the construction of FIG. 4, the rod (for example 45) is considered to extend through and include so much of the clamp 50 and associated hard ware as to form one leg of a triangle.

What is claimed is:

1. In a banner construction and assembly comprising an upright pole means, at least one banner means disposed on one side of said pole means, an upper support means joined to the top of said banner means and disposed transverse to the axis of said pole means and support rod means joining said upper support means to said pole means; the improvement which comprises attaching said rod means directly from said support means to a location on said pole means circumferentially displaced away from the surface of said pole means adjacent to said banner means forming a generally triangular geometric figure consisting of rod means, a portion of the surface of said pole means and a portion of said supporting means which triangle is in a plane transverse to the axis of said pole and transverse to the plane of the banner means and wherein the shortest leg of said triangular figure is the leg corresponding to said portion of the surface of said pole means.

2. An improved banner assembly as claimed in claim 1 including two banner means disposed on opposite sides of said pole means.

3. An improved banner assembly as claimed in claim 2 including lower support means joined to the bottom of said banner means.

4. An improved banner assembly as claimed in claim 3 including lower rod means extending from and attached to said lower supporting means and joined to such to said pole means at a position lower than said lower supporting means.

5. An improved banner assembly claimed in claim 4 wherein said lower rod means — lower support means — lower pole joining assembly is spring loaded.

6. An improved banner assembly as claimed in claim 1 wherein said upper rod means is attached to said pole means on the side thereof opposite to the pole side adjacent to said banner means.

7. An improved assembly as claimed in claim 1 wherein said upper rod means is attached to said pole means at a point about 90° displaced from the pole side adjacent to said banner.

8. An improved banner assembly as claimed in claim 1 wherein said upper rod means is a single rod connected at both ends to said upper supporting means and at an intermediate point to said pole means.

9. An improved banner assembly as claimed in claim 1 wherein said upper rod means is two rods each connected to an end of said upper supporting means at one end respectively, thereof with the other ends of said rods both being connected to said pole means at substantially the same location.

10. An improved banner assembly as claimed in claim 9 wherein the other ends of said rods are connected to said pole means at different locations.

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