

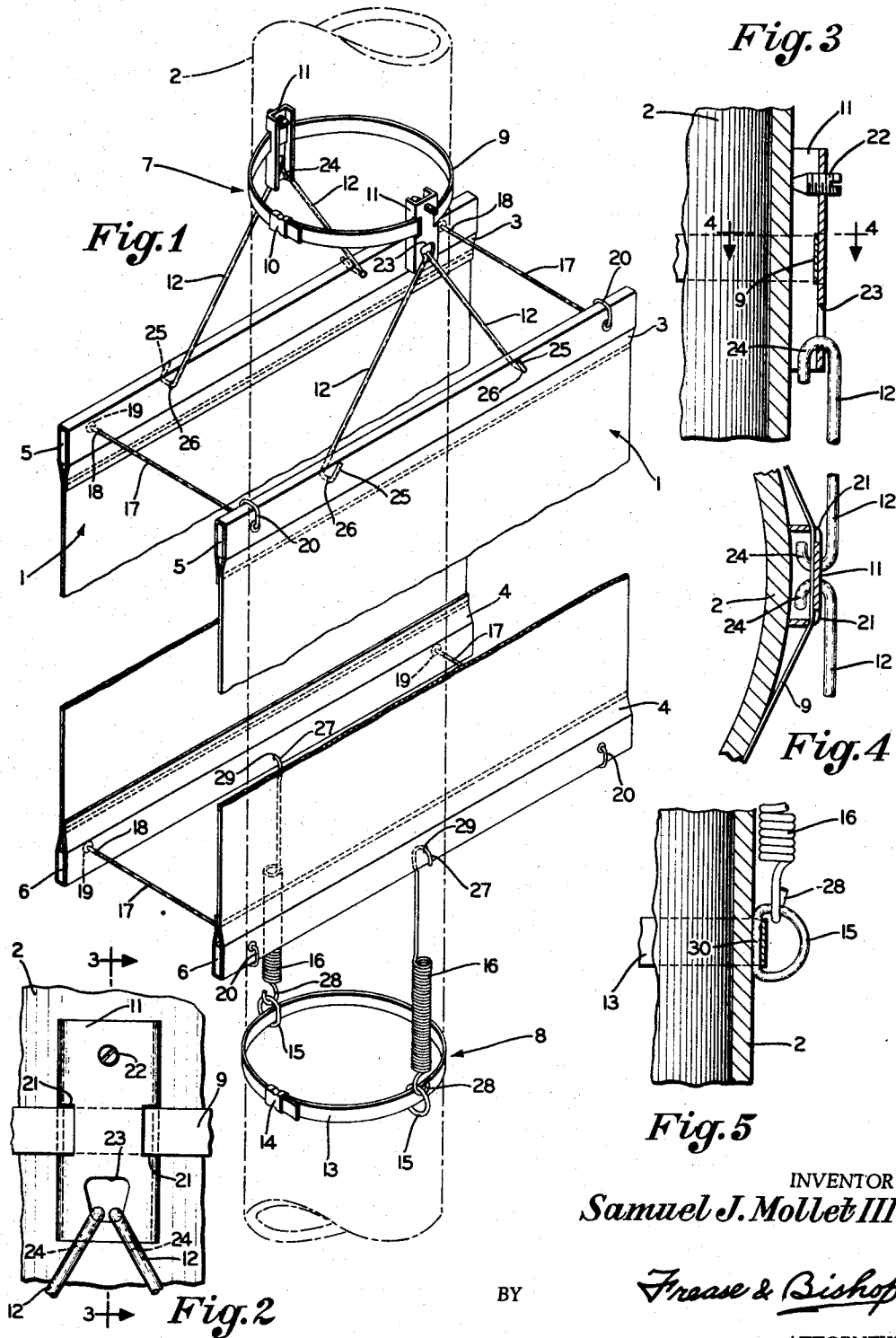
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S. J. MOLLET III

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BANNER MOUNTING CONSTRUCTION

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INVENTOR
Samuel J. Mollet III

BY *Freese & Bishop*
ATTORNEYS

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BANNER MOUNTING CONSTRUCTION

Samuel J. Mollet III, Massillon, Ohio, assignor to The Massillon-Cleveland-Akron Sign Company, Massillon, Ohio, a corporation of Ohio

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This invention relates to a mounting construction for banners and signs and more particularly it pertains to mounting supports for flexible banners and signs of the type disclosed in Patent No. 2,764,830 and in the copending application of Edward Frey Serial No. 702,008, filed December 11, 1957.

Signs and banners composed of cloth or other sheet-like material have been used for outdoor advertising purposes with unusual success. Ordinarily such signs are displayed to best advantage on permanent poles or standards by accessory mounting means. The mounting means include metal brackets at spaced vertical intervals on a pole, between which brackets the banners are tensionally mounted for display purposes.

From time to time the banners, being composed of material less durable than the mounting brackets, deteriorate due to the action of the weather such as sun and wind. For example, the sun fades the printing on the banner, rendering it less readable with time. Thus the banners should be replaced periodically.

Replacement of such banners, however, does not necessarily require that the mounting brackets also be replaced. As a matter of fact, where the brackets are composed of material that is resistant to corrosion and other detrimental effects, they may be permanently attached to a pole or standard such as is normally used on the premises of a gasoline filling station, and used repeatedly with replaceable flexible banners.

Heretofore several problems have existed with the banner tender shown in said Patent No. 2,764,830. In the first place, the mounting brackets or permanent hardware by which the upper ends of the banner components are secured in place have included hooks to which the banners are attached by hangers. The hooks are upturned members which it has been particularly difficult to attach the ends of the banners to because of the necessity of manipulating the banner, with hook-engaging hangers attached, upwardly and out of the plane of normal hanging of the banner. Such a manipulation has been precarious for a man on a stepladder. As a result, the replacement of the banners from time to time has been delayed and in some cases overlooked.

Additionally, the brackets disclosed in said Patent No. 2,764,830 have been relatively expensive compared to the over-all cost of the banner mounting hardware. The bracket at the upper end with an upturned hook welded or otherwise permanently secured thereto has been one of the most expensive parts of the assembly.

Further, the use of mounting brackets as permanent hardware at the lower end of the banner components with or without hooks permanently secured thereto in a manner similar to the mounting brackets at the upper end of the components likewise constitutes an attachment means which is difficult to attach during the final step in the erection of the banners or signs. It is therefore expedient to provide a bracket for the lower end of the banner components which is conducive to easier attach-

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ment of the banners, which is more easily installed, and which is less expensive.

It is a general object of this invention to provide an improved banner mounting construction for maintaining flexible banners in tension at all times.

It is another object of this invention to provide a banner mounting construction having permanent hardware components which are conducive to easier replacement of flexible banners or signs from time to time.

It is another object of this invention to provide a banner mounting construction having a pole bracket which is of cheaper construction and therefore contributes to a lower over-all cost of the entire unit.

Finally, it is an object of this invention to provide an improved banner mounting construction which eliminates the foregoing difficulties and which obtains the foregoing desiderata in a simple and effective manner.

These and other objects apparent to those skilled in the art may be obtained by the parts, constructions, arrangements, combinations, and subcombinations comprising the present invention, the nature of which is set forth in the following general statement, a preferred embodiment of which—illustrative of the best mode in which applicant has contemplated applying the principles—is set forth in the following description and illustrated in the accompanying drawing and which is particularly and distinctly pointed out and set forth in the appended claims forming a part hereof.

Generally, the improved banner mounting construction of the present invention may be stated as including an upright pole or standard, a vertical banner component on each side of the pole, upper suspension and lower tension means for mounting each banner component at opposite ends to the standard, each banner component including a rectangular sheetlike member, a top pull bar and a bottom pull bar on each banner component, the upper suspension means including a U-shaped bracket for each banner component and band means for holding the brackets on the standard, the suspension means also including a pair of elongated hangers for each banner component and having lower ends secured to each banner component, the upper ends of corresponding pairs of hangers being provided with inturned hooks, each bracket having a hook-receiving aperture, said aperture having the shape of an inverted isosceles trapezoid, the lower tension means including a spring having opposite ends hooked, the upper hooked spring end engaging the lower end of the corresponding banner component, a spring-hook-receiving ring located on the pole at a distance below the lower end of each banner component slightly greater than the length of the spring in the contracted position, the lower hooked spring end engaging the ring, and a tension member disposed between opposite corners of the spaced banner components, said tension members cooperating with the upper and lower mounting means to maintain the spaced banner components in a boxlike relationship with respect to each other.

By way of example, the preferred embodiment of this invention is illustrated in the accompanying drawing wherein:

Figure 1 is a perspective view of the banner mounting construction of the present invention;

Fig. 2 is an enlarged elevational view of one of the brackets shown in Fig. 1;

Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 2;

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 3; and

Fig. 5 is a vertical sectional view of the ring as shown in Fig. 1.

Similar numerals refer to similar parts throughout the several figures of the drawing.

Referring to Fig. 1, a pair of similar flexible banners or signs generally indicated at 1 are mounted on opposite sides of an upright support member, pole, or standard 2. The banners or signs 1 are preferably elongated, rectangular, flexible members having a longitudinal axis that is substantially vertical. Other shapes of banners may be used and sustained in a similar manner. Whatever shape is used, the opposite ends of the banners are provided with hemlike borders or sleeves such as the upper and lower sleeves 3 and 4 on each banner 1. The sleeves 3 and 4 are provided with a stiffener member or pull bar 5 and 6, respectively.

The banners 1, being composed of flexible material such as cloth, are sustained in taut, vertical planes as shown in Fig. 1 by upper and lower banner mounting means generally indicated at 7 and 8, respectively. The pull bars 5 and 6 may be composed of wood, metal, or other suitable rigid material.

The upper mounting means 7 includes a pole band 9 having a clamp 10 of conventional construction for retaining the band tightly in place on the pole 2. In addition, the mounting means 7 includes a pair of brackets 11 and a pair of link members or hanger hooks 12. Likewise, the lower mounting means includes a pole band 13 having a conventional clamp 14, a pair of rings 15 on diametrically opposite sides of the pole 2, and a pair of springs 16.

The upper and lower mounting means 7 and 8 provide connection for the banners 1 to the pole or standard 2. The spaced banners 1 are connected to each other by four tension members 17 disposed in upper and lower pairs as shown in Fig. 1. The upper sleeves 3 and the pull bars 5 therein are each provided with aligned apertures 18 through which the tension members extend. One end of each tension member 17 includes an enlarged head 19 and the other end when installed as shown in Fig. 1 is bent at 20, preferably around the end of the banner 1. In this manner, the length of the tension members 17 between the spaced banners 1 on opposite sides of the pole 2 may be slightly less than the diameter of the pole so that the banners 1 assume a slightly bowed or arcuate configuration, the centers of which are in contact with opposite sides of the pole 2. However, the banners 1 may also be held flat and parallel to each other by the tension members 17. Thus the spaced banners 1 are maintained in a boxlike assembly with one another, free to yield slightly in response to gusts of wind and always returning to the normal position.

As shown in the several figures of the drawing, the brackets 11 are U-shaped members that engage the pole 2 at diametrically opposite sides. Moreover, each bracket 11 is preferably in vertical alignment with the corresponding ring 15 at the lower end of the pole. Each bracket 11 is secured in place by the pole band 9 which extends through a pair of spaced slots 21 (Figs. 2 and 4) which band holds the outer edges of the sides of the U-shaped bracket tightly against the outer surface of the pole 2 and preferably so tightly in place that the edges of said brackets bite into the pole surface in a non-slip manner. In addition, each bracket 11 is provided with a set screw 22 (Fig. 3) for providing additional frictional engagement with the pole.

As shown in Fig. 2, the brackets 11 include an aperture 23 at the lower end for engaging the upper hooked ends 24 of the hangers 12. Each aperture 23 has the preferred shape of an inverted isosceles trapezoid with upper and lower parallel sides which facilitates insertion and withdrawal of the hooked ends 24 of the hangers 12. In addition, the aperture 23 has sufficient diagonal dimension that the inturned hooks 24 on the hangers 12 may be inserted or removed by holding each pair of hangers 12 in a substantially vertical plane; that is, when the hooked ends 24 are aligned with the aperture 23 each hanger 12 may be moved radially inwardly or outwardly with respect to the pole for insertion or removal of the hooks

in the aperture. Finally, when the hangers 12 are engaged on the bracket 11, a limited amount of pivotal movement is permitted between the hangers 12 and the bracket, which movement not only facilitates the mounting of the banners 1 on the pole but also permits the banners to yield slightly in response to gusts of wind and then return to the normal position due to tension of the springs 16.

As shown in Fig. 1, the lower end of each hanger 12 is likewise provided with a hook 25 which engages a hole 26 extending through the sleeve 3 and pull bar 5. Each hanger 12 extends downwardly and outwardly from the bracket 11 to the corresponding sign 1 where it engages the hole 26.

The springs 16 at the lower ends of the banners 1 have upper and lower hooked ends 27 and 28. The hook 27 on each spring 16 engages an aperture 29 centrally disposed in the sleeve 4 and slat 6. The lower hooked end 28 of the spring 16 is disposed in a plane preferably perpendicular to that of the hook 27 and engages the ring 15.

As shown in Fig. 5, the ring 15 includes at least one straight portion 30 disposed between the band 13 and the pole 2. The band 13 holds the diametrically opposite rings 15 at the proper distance below the lower end of the banners 1 so that when the springs 16 are mounted as shown, the banners 1 are sustained tautly in place between the upper and lower bands 9 and 13.

The boxlike structure of the two spaced banners 1 is maintained by the upper and lower mounting means 6 and 7 including the tension members 17. By providing each bracket 11 with the aperture 23 the hooked ends 24 of the hangers 12 may be readily inserted into their pivotal positions of engagement with the bracket. The tension members 17 in cooperation with the pole 2 hold the inner sides of the banners 1 in preferably slightly bowed configurations and at the same time permit free movement on the surface of the pole without binding. Accordingly, the banner mounting construction holds the banners 1 tautly in a boxlike manner on opposite sides of the pole 2 without being subjected to permanent twisting and subsequent uneven banner surfaces due to wind and other weather conditions.

The particular inverted isosceles trapezoidal shape of the aperture 23 in each bracket 11 has special significance. Referring particularly to Figs. 2, 3 and 4, when the banners are in mounted position, the hooked ends of the inturned hooks 24 at the upper ends of the hangers 12 are engaged in the minimum dimension lower portion of the trapezoidal aperture. Engagement with the lower side of the aperture 23 is maintained from the tension of the spring 16 pulling the banner 1 downwardly. The downwardly inwardly converging sides of the trapezoidal aperture 23 also maintain the upper hooked ends 24 of the hangers 12 closely together.

Furthermore, the recess within the lower end of the U-shaped channel brackets 11 behind and below the aperture 23 (Fig. 3) provides ample room for the reception of the inturned hooked ends 24 of the hangers 12, with both engaged in one aperture.

As shown particularly in Figs. 2 and 3, the length of the hooked ends 24 of the hangers 12 is substantial so that once the hooked ends of both hangers are engaged in and hooked in the single aperture 23, by positioning the hooked ends 24 through the aperture 23 radially with respect to the pole as described, the hooked ends of the hangers 12 cannot become accidentally disengaged from the bracket 11 by movement of the banners incident to wind pressure from any direction.

In the foregoing description certain terms have been used for brevity, clearness and understanding, but no unnecessary limitations have been implied therefrom as such words are used for descriptive purposes and are intended to be broadly construed.

Moreover, the embodiment of the improved construc-

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tion illustrated and described herein is by way of example and the scope of the present invention is not limited to the exact construction shown.

Having now described the invention, construction, operation and use of a preferred embodiment thereof and the advantageous, new and useful results obtained thereby; the new and useful banner mounting construction and reasonable mechanical equivalents thereof obvious to those skilled in the art are set forth in the appended claims.

What is claimed is:

1. Banner mounting construction including an upright support member, two banner components, upper mounting means for suspending the banner components on the upright support member, lower tension means for holding the banner components in tension, the upper suspending means including a pair of mounting brackets one each on opposite sides of and secured to the upright support member, a pair of banner hangers extending between and attached at opposite ends to the corresponding banner component and a single bracket, the upper ends of the hangers having hooked end portions, each bracket having aperture means in releasable engagement with a pair of hanger hooked end portions, each aperture means having the configuration of an inverted isosceles trapezoid, the upper hooked end portion of each banner hanger being disposed in a plane perpendicular to that of the aperture means, and the upper hooked end portion of each hanger having a length equal to the inclined sides of the isosceles trapezoid aperture means to enable insertion and removal of the hooked end portion radially of the upright support member.

2. The construction set forth in claim 1 in which the lower tension means includes a single ring on diametrically opposite sides of the support member, the lower tension means including a pair of springs mounted in tension separately between the single ring and the lower end of the corresponding banner component, and each ring being spaced below the lower end of the banner com-

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ponent by a distance greater than the length of the unexpanded spring.

3. Banner mounting construction including an upright support member, a banner component on each diametrically opposite side of the support member, upper means for suspending the banner components on the upright support member, lower tension means for holding the banner components in tension, the upper suspension mean including a pair of mounting brackets one each on diametrically opposite sides of the support member and strap means for retaining the brackets in place, the upper suspending means also including a pair of downwardly and outwardly extending hangers having lower ends secured to the upper end of each banner and having upper hooked end portions, each bracket having an aperture having the shape of an inverted isosceles trapezoid, the upper hooked end portions of corresponding pairs of hangers being pivotally secured in the corresponding aperture of a single hanger, the lower tension means including a pair of diametrically spaced rings and band means for securing the rings on the supporting member, the lower tension means also including a pair of springs mounted in tension separately one each between the lower end of a banner component and a single corresponding ring, the spacing between the band means in the upper suspension and the lower tension means being greater than the total length of each banner, the attached hangers, and the corresponding unexpanded spring, the upper hooked end portion of each banner hanger being disposed in a plane perpendicular to that of the aperture means, and the upper hooked end portion of each hanger having a length equal to the inclined sides of the isosceles trapezoid aperture means to enable insertion and removal of the hooked end portion radially of the upright support member.

References Cited in the file of this patent

UNITED STATES PATENTS

2,764,830 Frey ----- Nov. 23, 1955