March 26, 1963 H. W. BOWER 3,082,989

BANNER SUPPORT CONSTRUCTION

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FIG. 1.

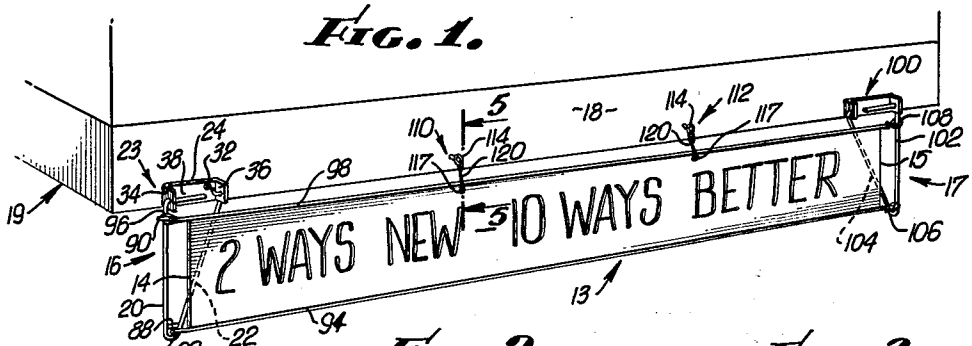


FIG. 2.

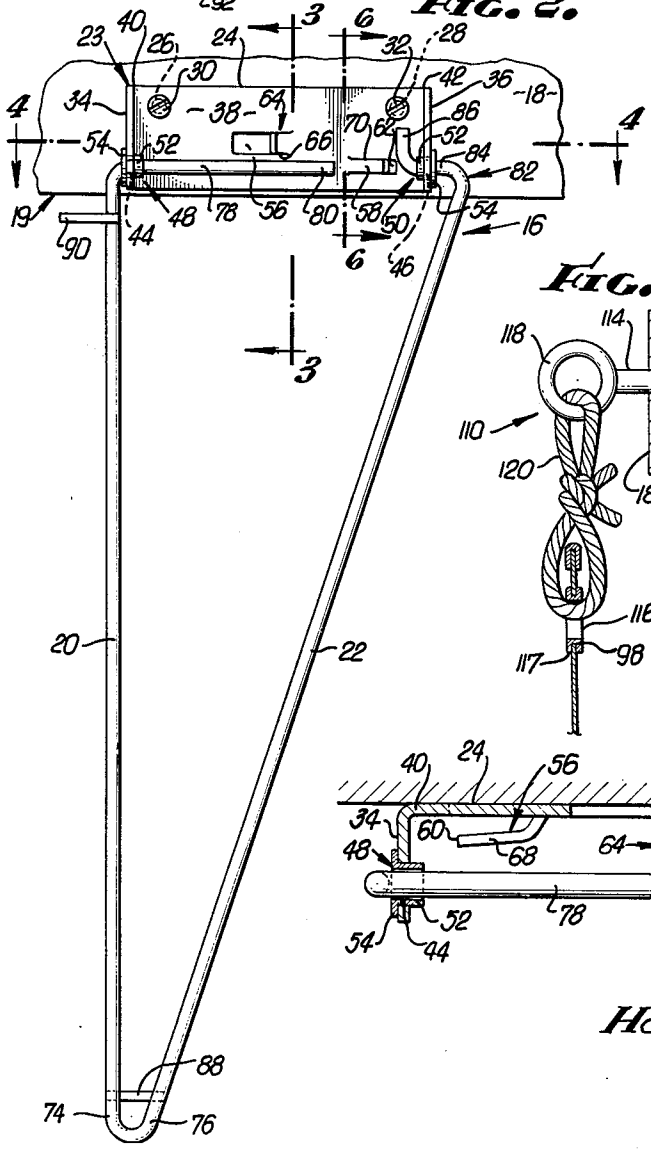


FIG. 3.

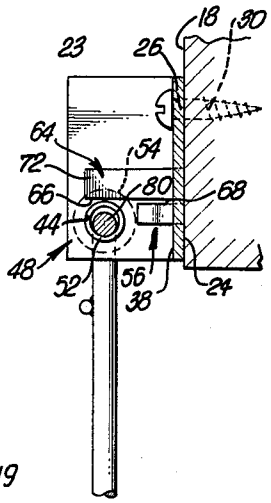
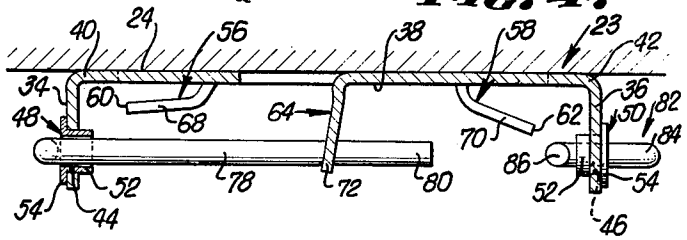


FIG. 5.

FIG. 4.



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BANNER SUPPORT CONSTRUCTION

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FIG. 6.

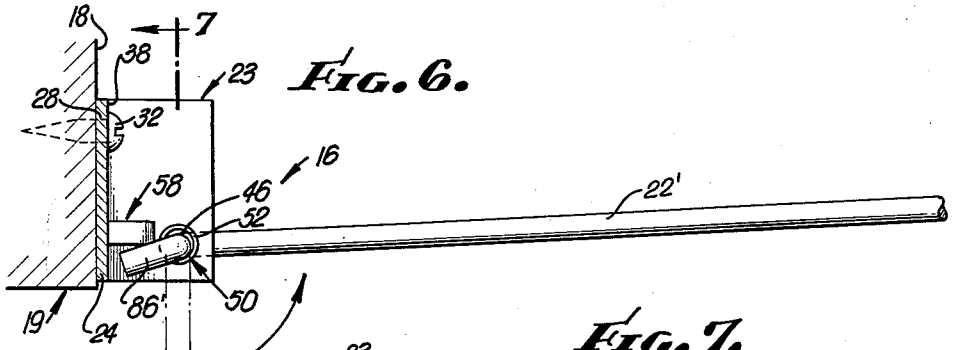


FIG. 7.

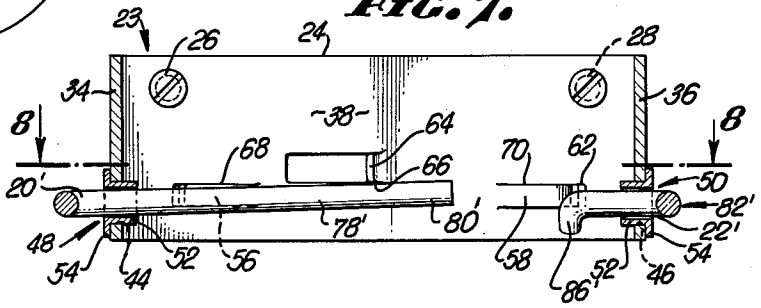


FIG. 8.

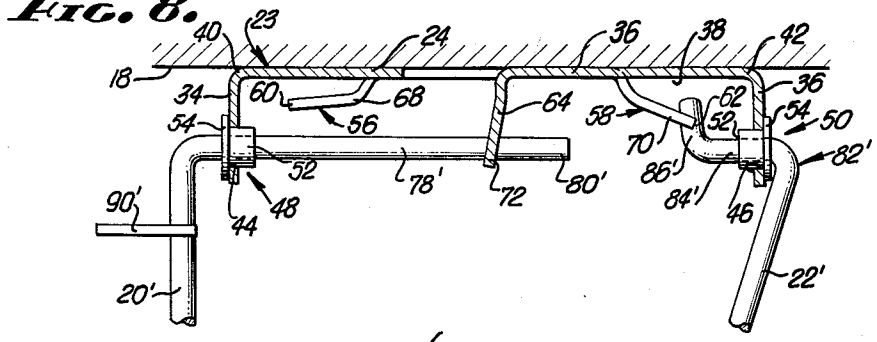
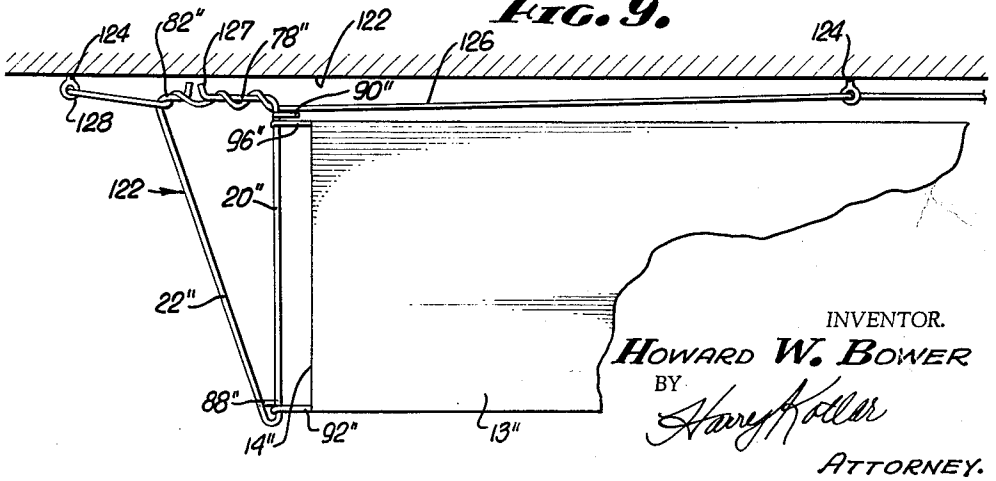


FIG. 9.



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BANNER SUPPORT CONSTRUCTION

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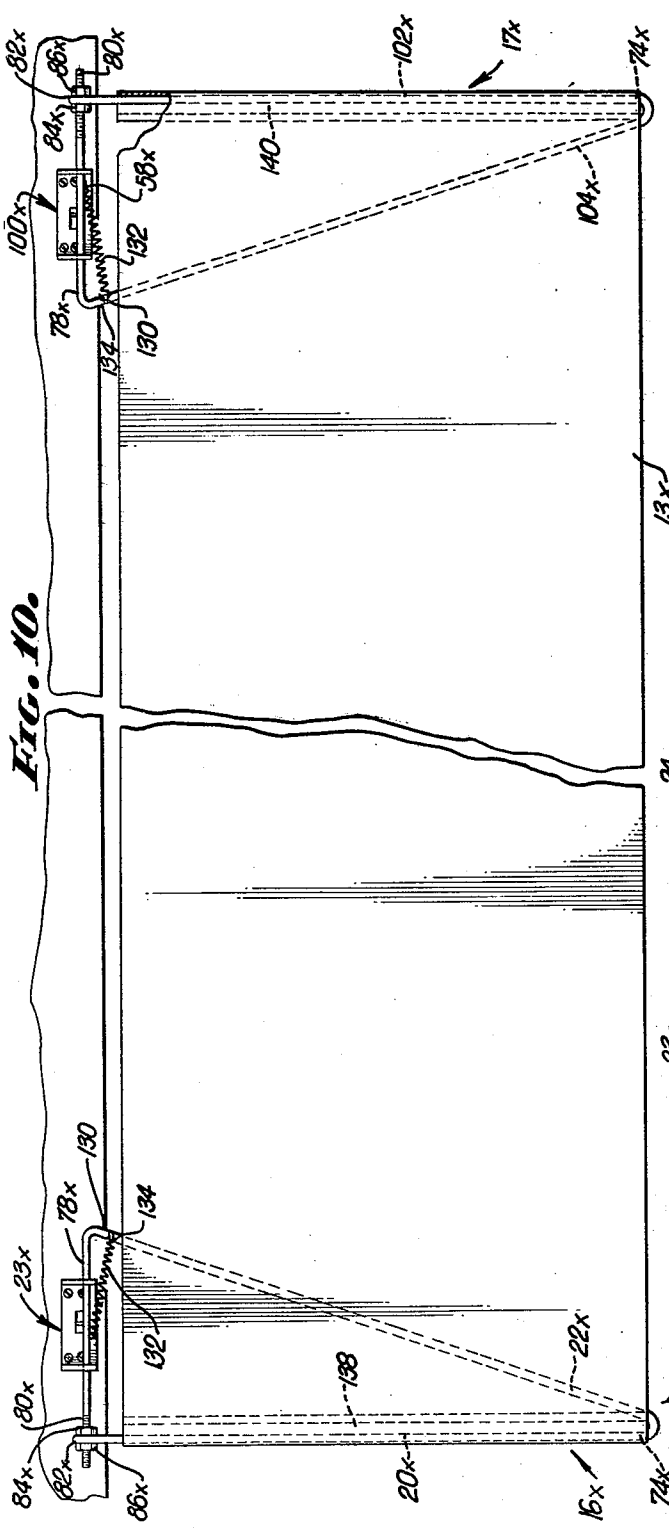


FIG. 10.

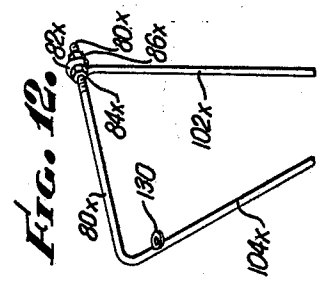


FIG. 12.

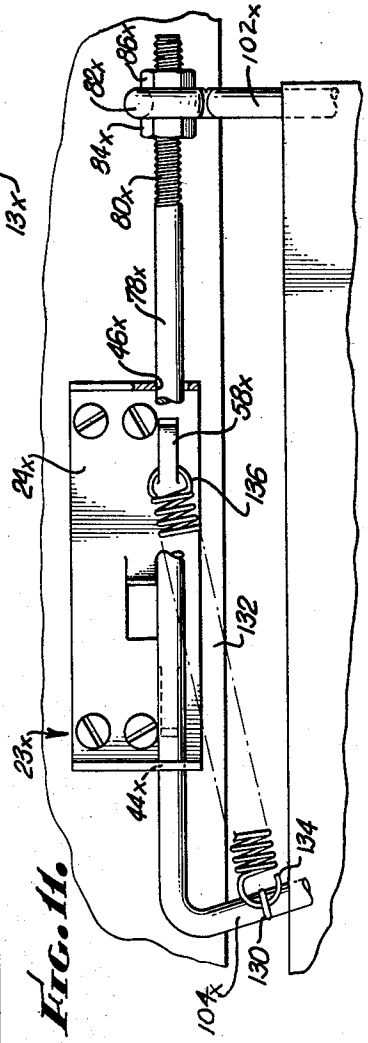


FIG. 11.

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BANNER SUPPORT CONSTRUCTION

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1 Claim. (Cl. 248—286)

The present invention relates to banner support constructions, and more particularly to a banner support construction adapted for mounting on a building canopy.

Banner support constructions are well-known in the prior art. However, such constructions have often been quite complicated in design, and usually have required the use of stands, poles, posts, or other similar means for the support thereof. Furthermore, the banner support constructions heretofore known have proved especially inadequate for use with banners made of cloth. A cloth banner, when maintained outdoors, tends to flop in the wind with serious results. As a consequence of such flopping in the wind, the banner may become displaced from its desired position. Also, it may become distorted in shape. Furthermore, it may be torn by the wind. Even if these aforementioned consequences do not occur, the banner is likely to wear out very quickly, and perhaps in as short a period as a month.

It is therefore an object of the invention to provide an improved banner support construction.

Another object of the invention is to provide a banner support construction of comparatively simple design.

Another object of the present invention is to provide a banner support construction not requiring the use therewith of supporting means such as a pole.

Another object of the invention is to provide a banner support construction adapted to be placed on the canopy of a building.

Another object of the present invention is to provide a banner support construction which will provide adequate support for a cloth banner hung outdoors and in the wind.

Another object of the invention is to provide a banner supporting construction which a cloth banner may be hung without flopping due to wind.

Another object of the present invention is to provide a banner support construction which will maintain a cloth banner hung thereon in a predetermined desired position, even in the face of strong winds.

Another object of the invention is to provide a banner support construction which will prevent distortion in shape of a banner hung thereon, as a result of flopping in the wind.

Another object of the present invention is to provide a banner support construction which will aid in preventing tearing of cloth banners hung thereon, as a result of flopping in the wind.

Another object of the invention is to provide a banner support construction, the use of which assures longer life of a banner hung thereon.

Another object of the invention is to provide a banner support construction utilizing spring means for maintaining taut a banner supported thereby.

These and other objects of the invention will become apparent from the following description thereof, read in conjunction with the accompanying drawings, in which:

FIG. 1 is a view in perspective of a banner supported by two bracket members of the invention mounted on a canopy;

FIG. 2 is an enlarged front elevation of one of the bracket members of FIG. 1, a portion of the canopy also being shown;

FIG. 3 is a further enlarged vertical section taken along the lines 3—3 of FIG. 2, and being partly broken away;

FIG. 4 is a further enlarged horizontal section taken along the lines 4—4 of FIG. 2, and being partly broken away;

FIG. 5 is an enlarged vertical section taken along the lines 5—5 of FIG. 1;

FIG. 6 is a further enlarged vertical section taken along the lines 6—6 of FIG. 2, being partly broken away and shown in two alternative operative positions;

FIG. 7 is a vertical section taken along the lines 7—7 of FIG. 6, and being partly broken away;

FIG. 8 is a horizontal section taken along the lines 8—8 of FIG. 7, and being partly broken away;

FIG. 9 is a front elevation, being partly broken away, of a banner supported in a modified manner by the bracket arms of the invention, a portion of a canopy on which the banner is mounted also being shown;

FIG. 10 is a front elevation, partly broken away, of a modified banner support construction in accordance with the invention, being shown mounted on a canopy and with a banner in position;

FIG. 11 is an enlarged front elevation of a portion of the modification of FIG. 10; and

FIG. 12 is a fragmentary view in perspective of one of the pairs of bracket arms of FIGS. 10–11.

Referring to the drawings, and particularly to FIG. 1, a cloth banner 13 is shown, secured at its opposite side edges 14 and 15 to two substantially identical bracket members 16 and 17, respectively, each of the bracket members 16 and 17 being mounted on a vertical surface portion 18 of a canopy 19 of a building (not shown) such as a gasoline service station. The banner 13 may bear any desired lettering or design thereon, and may, e.g., be 12 feet long and 18 inches high.

The bracket member 16 may be constructed of metal, or of a suitable plastic material, and includes a pair of bracket arms 20 and 22, suspended from a bracket body 23 (see also FIG. 2). The body 23 is of channel shape, and includes a rear vertically extending web portion, or wall 24 having two horizontally spaced bores 26 and 28 therethrough, the latter being adapted to receive screws 30 and 32, respectively, or other similar means for mounting the bracket member 16 on the canopy surface 18. It will be understood that additional bores and screws or other mounting means may be employed for the purpose.

The body 23 further includes two vertical side walls 34 and 36 forwardly extending in substantially parallel opposed relation with respect to one another from the front surface 38 of the wall 24. The side walls 34 and 36 are substantially perpendicular to the wall 24, and positioned at the side edges 40 and 42 of the latter, respectively. Two substantially coaxial bores 44 and 46 extend through the walls 34 and 36, respectively, adjacent the lower ends of the latter, and are provided with two reinforcement liner members 48 and 50 (see also FIG. 4), respectively. Each of the latter is preferably of plastic and has a cylindrical portion 52 adapted for press-fit insertion through the respective bore 44 or 46, and an outer comparatively flat cylindrical head 54 adapted for abutment with the respective vertical side wall 34 or 36.

The rear wall 24 is provided with abutment means including two curvilinear forwardly-extending tongues 56 and 58, cut out from the material of said wall 24, and having outer ends 60 and 62 positioned adjacent the bores 44 and 46, respectively. Also included in said abutment means, and being cut out from the rear wall 24 and forwardly-extending therefrom is a third tongue 64, which, however, is comparatively straight, and is positioned approximately midway between the tongues 56 and 58. As most clearly seen in FIGS. 2 and 3, the lower edge 66 of the tongue 64 is on a level slightly

higher than the upper edges 68 and 70 of the tongues 56 and 58, respectively. It will also be noted that the outer end portion 72 of the tongue 64 is approximately the same distance from the surface 38 as are the bores 44 and 46.

The bracket arms 20 and 22 are interconnected at their respective inner or lower ends 74 and 76, and are preferably of integral construction as shown. The arm 20 is substantially vertical, and is formed with a substantially right-angled bend to provide a substantially horizontally-extending outer or upper end portion 78 which is loosely inserted through the liner member 48 associated with the bore 44, and extends for some distance horizontally across the body 23, so as to lie adjacent its distal end 80 a short distance below the lower edge 66 of the tongue 64. The arm 22 extends angularly upward from the lower end 74 of the arm 20, and is provided with a generally S-, or hook-shaped upper end portion 82, inserted through the member 50 associated with the bore 46. The hook-shaped upper end portion 82 of the arm 22 includes a substantially horizontally-extending short central segment 84 which normally extends loosely through the member 50, and a distal segment 86 curving upward from said segment 84, and serving to maintain the portion 84 within the member 50 and in association with the side wall 36.

A substantially horizontally-extending pin 88, preferably of the same material as the remainder of the bracket 16, extends between the bracket arms 20 and 22, being welded to the surfaces of the latter adjacent their respective lower ends 74 and 76. A second pin 90, similar to the pin 88 and likewise generally horizontal is secured only to the arm 20, and is located a short distance below the upper end portion 78 thereof.

As most clearly seen in FIG. 1, the banner 13 at its side edge 14 is secured to the bracket 16 by means of a length of cord 92 tied to the respective lower ends 74 and 76 of the bracket arms 20 and 22 beneath the pin 88, said cord 92 being integral with the banner 13 and generally in alignment with the lower edge 94 of the latter. The banner 13 is similarly secured to the pin 90 by means of a length of cord 96 which is generally aligned with the upper edge 98 of said banner 13 and integral with the latter.

As previously indicated, the bracket member 17 is substantially identical in construction with the bracket member 16, and the former includes a body 100 mounted on the vertical surface 18 of the canopy 19 in horizontal alignment with the body 23 of the bracket member 16. The arms 102 and 104 of the bracket member 17, however, are positioned reversely to the corresponding arms 20 and 22 of the bracket member 16. Here again, lengths of cord 106 and 108, corresponding respectively to the cord lengths 92 and 96, secure the banner 13 at its side edge 15 to the bracket member 17. The bracket members 16 and 17 thus serve to hold the banner 13 taut.

As a further aid in holding the banner 13 taut, tightening means in the form of two identical pairs 110 and 112 of cooperating eye screws and grommets are employed for securing the banner 13 to the canopy surface 18 at points intermediate the bracket members 16 and 17. Referring to FIG. 5, it will be seen that the tightening means 110 includes an eye screw 114 screwed into the canopy 19 at the surface 18, and a grommet 116 adapted for securing to a conventional eyelet 117 (see also FIG. 1) adjacent the upper edge 98 of the banner 13. The grommet 116 is tied to the eye 118 of the eye screw 114 by means of a twin loop of Venetian cord 120, in conventional manner. It will be realized that any number, e.g., three or more, tightening means such as shown at 110 and 112 may be employed if desired, depending primarily on the length of the banner 13.

During ordinary operation of the banner support construction shown in FIGS. 1–4, the banner 13 is held taut by means of the cords 92, 96 and 106, 108 which secure said banner 13 to the bracket members 16 and 17, respectively; and also by the tightening means 110, 112. As a result of the loose fit between the bracket arm upper end portion 78 and liner member 48, and between the segment 84 and liner member 50, the bracket arms 20 and 22 are rotatably suspended from the body 23 of the bracket member 16. The bracket arms 102 and 104 are similarly rotatably suspended from the body 100 of the bracket member 17. It will thus be clear that the pairs of bracket arms 20, 22 and 102, 104 lie in positions of generally parallel placement with respect to the web 24, and the web of the body 100, respectively, and are free to swing back and forth together with the banner 13, the connection between the cord 120 and the eye 118 of the screw 114 of each tightening means 110, 112 likewise permitting such swinging. As a consequence, the banner 13 will swing in the wind, while being maintained taut. Flopping in the wind will thus be prevented; danger of tearing of the banner is practically eliminated; and the length of the life of the banner 13 substantially increased.

If it be desired that the banner 13 be held out of the way in a raised, substantially-horizontal position, this may be accomplished by shifting the bracket arms 20, 22 and 102, 104 into positions now to be described. Referring to FIG. 6, the bracket arm 22 is shown in its normal position, and also in a raised position indicated at 22′, the bracket arm 20 having a similar raised position shown at 20′ (see also FIGS. 7 and 8). When the arms 20 and 22 are in their respective raised positions 20′ and 22′, they lie generally perpendicular to the web 24, and may be locked in such raised positions by flexing the arms 20′ and 22′ manually or by suitable mechanical means, so as to bring their respective upper end portions 78 and 82 into the positions 78′ and 82′, respectively (shown most clearly in FIGS. 7 and 8). When in such positions, it will be seen that the distal end 80′ of the upper end portion 78′ of the bracket arm 20′ becomes wedged beneath the tongue 64, and in contact with the undersurface 66 thereof. At the same time, the distal end 86′ of the upper end portion 82′ of the bracket arm 22′ becomes wedged beneath the tongue 70. The bracket arms 102 and 104 of the bracket member 17 may simultaneously be moved into a similar raised and locked position, so as to properly support the banner 13 in such raised position.

It will be apparent that the bracket members 16 and 17 may be reversed in position on the canopy surface 18, with the pairs of arms 20, 22 and 102, 104 then each being reversed with respect to the corresponding supporting bracket body 23 or 100. In other words, each of the bracket bodies 23 and 100 may be mounted at either the right or the left end of the canopy surface 18.

Referring to FIG. 9, a modified form of the invention is shown, in which a banner 13″ similar to the banner 13 is supported at its opposite sides (only one side being shown) by two identical pairs of bracket arms 122 (only one pair being shown). It will be noted that the one pair of bracket arms 122 shown is made up of two arms 20″ and 22″ which are similar in structure to the bracket arms 20 and 22 of FIGS. 1–8, respectively. The bracket arms 20″ and 22″, however, are employed without use of a bracket body, and instead are suspended from a horizontally-extending canopy surface 122 by means of several eye screws 124 (two being shown) screwed into said surface 122. A length of Venetian cord or other similar material 126 is wound about the respective upper end portions 78″ and 82″ of the bracket arms 20″ and 22″, and is secured at one end 128 to one of the eye screws 124. It will be noted that the upper end portion 78″ is provided with a hooked outer end 127 for maintaining the cord 126 in the position shown. The cord 126 passes through any desired number of eye screws 124

located intermediate the two pairs of bracket arms **122**, and serves to support the other pair of bracket arms **122** (not shown) in the same manner as previously described, being secured at its end (not shown) opposite the end **128** to an eye screw **124**. Rods **88''** and **90''**, corresponding to the rods **88** and **90** of FIGS. 1–8, respectively, are provided, for securing the banner **13''** to each pair of bracket members **122**, employing cord **92''** and **96''** in the same manner as described hereinabove in connection with FIGS. 1–8.

It will thus be apparent that the bracket arms **20** and **22** of the present invention are not only reversible in their position when suspended from a bracket body **23** or **100** such as shown in FIGS. 1–8, but can be used apart from the latter as shown in FIG. 9.

Referring to FIGS. 10–12, a further modified form of the invention is shown. Here, a cloth banner **13^x** which is similar to the banners **13** and **13''**, but larger in size than either of the latter, is supported for swinging movement by two bracket members **16^x** and **17^x** also of comparatively large size. The bracket members **16^x** and **17^x** include bracket bodies **23^x** and **100^x** identical in structure to the corresponding bracket bodies **23** and **100** of the embodiment. of the invention of FIGS. 1–8. The bracket members **16^x** and **17^x** provide two pairs of bracket arms **20^x**, **22^x** and **102^x**, **104^x**, respectively. The bracket arms **20^x** and **102^x** are substantially vertical, and are interconnected respectively at their inner or lower ends **74^x** with the bracket arms **22^x** and **104^x** extending angularly upward therefrom. Each of the arms **22^x** and **104^x** is provided at its upper end with a horizontally extending upper or outer end portion **78^x**, the latter projecting in the direction of the respectively associated vertical arm **20^x** or **102^x**, and having an outer threaded end **80^x** positioned adjacent the latter. Each of the vertical arms **20^x** and **102^x** is provided at its upper end with an eye **82^x**, which fits over the threaded outer end **80^x** of the associated horizontal arm portion **78^x**. Two nuts **84^x** and **86^x** are carried by each of the threaded ends **80^x**, at opposite sides of the respectively associated eye **82^x**, and serve to lock the latter in position.

Secured to each of the arms **22^x** and **104^x** by any suitable means such as, for example, welding, and adjacent the upper end thereof is a ring **130**. Associated with each of the bracket members **16^x** and **17^x** is a tension spring **132**, which is hooked at its outer end **134** to the respective ring **130**, and at its inner end **136** to the tongue **58^x** of the respective bracket body **23^x** or **100^x**, as most clearly shown in FIG. 11. The inner end **136** of the spring **132** may alternatively be hooked to the bracket body **23^x** by employing a bore (not shown) through the rear wall **24^x** thereof, which bore is adapted to receive said end **136**. Such bore would preferably be located adjacent the tongue **58^x**.

The banner **13^x** is secured at its sides to the arms **20^x** and **102^x** by means of two pole sleeves **138** and **140**, respectively, the latter being of conventional design.

In the operation of the embodiment of FIGS. 10–12, it will be apparent that the springs **132** serve to draw the sets of bracket arms **20^x**, **22^x** and **102^x**, **104^x** apart, and consequently to maintain taut the banner **13^x**. At the same time, the two pairs of bracket arms **20^x**, **22^x** and **102^x**, **104^x** are free to swing back and forth together with the banner **13^x**, with the two horizontal arm portions **78^x** serving as pivot rods. Here again, flopping in the wind will be prevented; tearing of the banner **13^x** avoided; and the life of the latter substantially lengthened.

It will be obvious that in the case of any of the banners **13**, **13''** or **13^x**, suspension thereof may be effected in accordance with the invention between two posts if desired; or from any other suitable support means.

Although the invention has been described with reference to particular embodiments thereof, it will be understood that various changes and modifications may be made therein without departing from the spirit of the invention or the scope of the appended claim.

I claim:

A support construction, comprising in combination a bracket body and a bracket member, said bracket member providing first and second bracket arms, said second bracket arm extending angularly with respect to said first bracket arm, said first and second bracket arms having respective inner ends interconnected together and respective spaced-apart outer end portions, said outer end portion of said first bracket arm forming a substantially right-angled bend and extending generally toward said second bracket arm, said outer end portion of said second bracket arm being generally S-shaped and including a central segment extending generally toward said first bracket arm, said S-shaped portion including a distal segment extending generally transversely of said central segment, said bracket body being of channel shape and providing a web portion adapted to be mounted on a vertical surface, said bracket body providing two substantially parallel walls located at opposite side edges of said web portion, respectively, said walls projecting substantially perpendicularly from said web, said walls being formed with two coaxial bores, respectively, said outer end portion of said first bracket arm and said central segment of said S-shaped portion rotatably extending through said two bores, respectively, said distal segment of said S-shaped end portion being positioned intermediate said two walls, and abutment means projecting from said web and intermediate said walls, said bracket arms being pivotable between two positions of parallel and perpendicular placement with respect to said web, respectively, said abutment means and said outer end portions being adapted for interengagement when said bracket arms are in said position of perpendicular placement and for prevention of pivoting of said bracket arms into said position of parallel placement, whereby when said bracket body is mounted on a vertical surface, said bracket arms are pivotable between two positions of substantially vertical and substantially horizontal placement, respectively, and said bracket arms may be locked in said position of horizontal placement.

References Cited in the file of this patent

UNITED STATES PATENTS

974,615	Vonderahe	Nov. 1, 1910
1,821,722	Neal	Sept. 1, 1931
2,070,408	Leidgen	Feb. 9, 1937
2,802,577	Moore	Aug. 13, 1957
2,877,971	Goldstein	Mar. 17, 1959
2,926,878	Taschner	Mar. 1, 1960