United States Patent

[11] 3,589,048

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[54] **POLE BANNER SIGN CONSTRUCTION**
7 Claims, 11 Drawing Figs.

[52] **U.S. Cl.** ..... **40/128,** 40/145 R
[51] **Int. Cl.** **G09f 7/22**
[50] **Field of Search** ..... 40/128, 125 G, 145

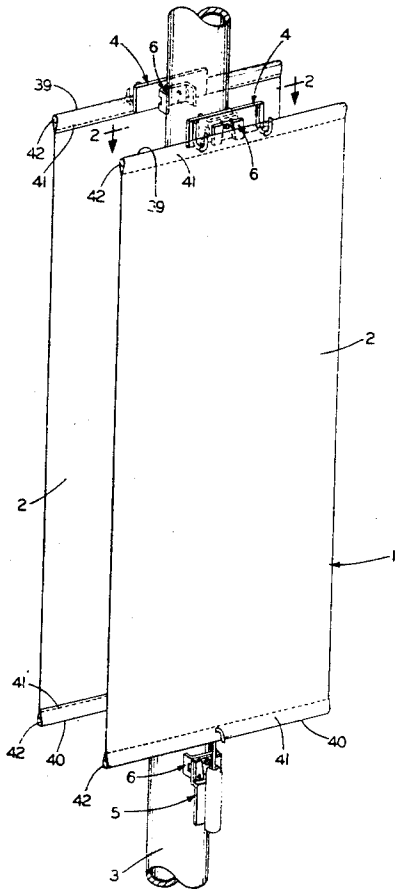
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2,893,147	7/1959	Mollet	40/128 X
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Primary Examiner—Robert W. Michell
Assistant Examiner—Wenceslao J. Contreras
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ABSTRACT: The pole banner sign construction has permanent hardware for supporting a flexible banner on a pole. All of the hardware excepting a simple mounting plate at the top and lower ends of the banner is removable from the pole for storage so that it does not present an unsightly appearance when not used for supporting a banner. A simple flexible banner that may be changed from time to time is mounted on the hardware and is adapted to be folded into a small package for shipment in an envelope. A pair of banner members may be similarly mounted on either side of the pole. The banner may be changed from time to time without the use of any tools by merely unhooking several hooks from banner engagement, and transferring pull rods from an initial banner to a replacement banner, and then hooking the replacement banner in place.



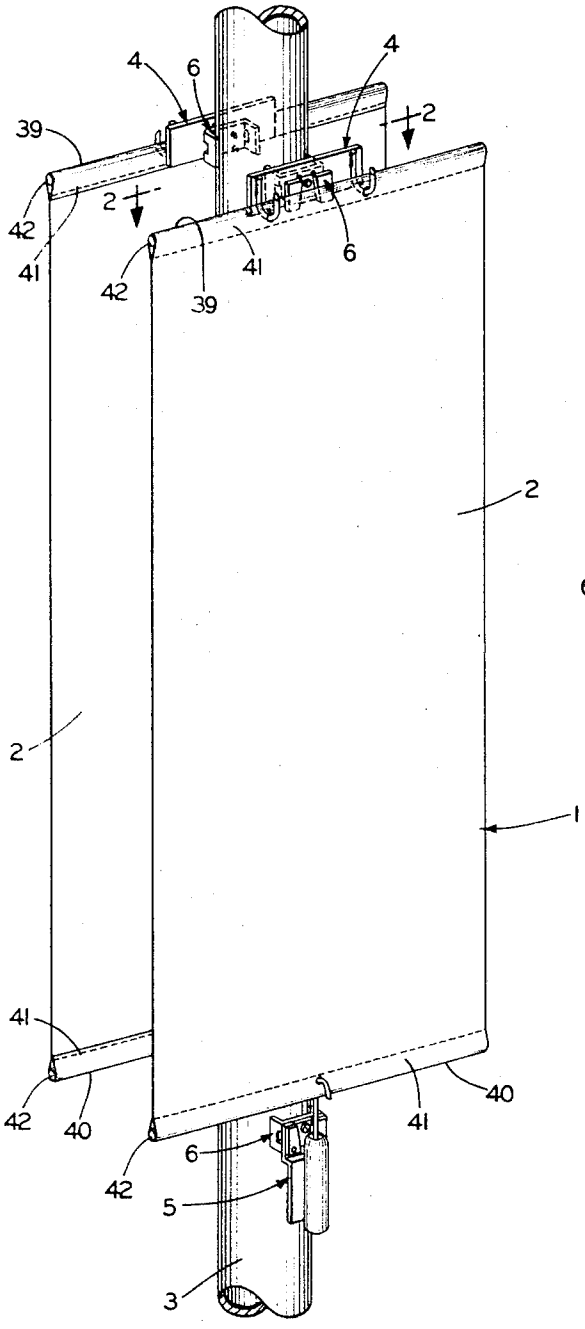


Fig. 1

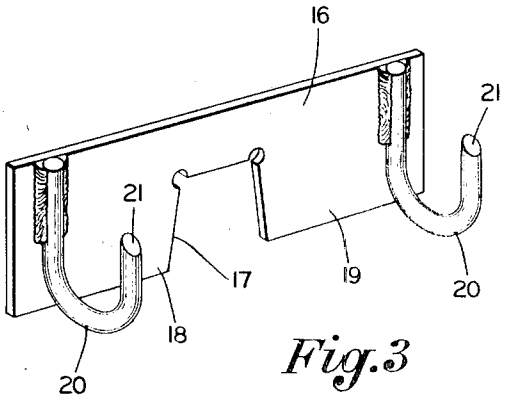


Fig. 3

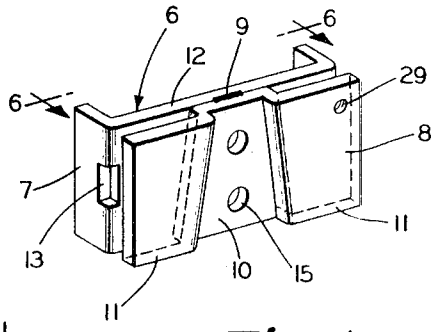


Fig. 4

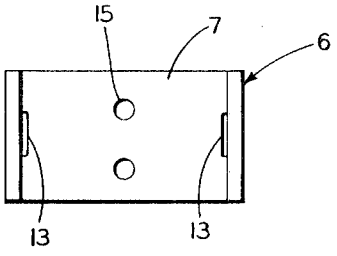
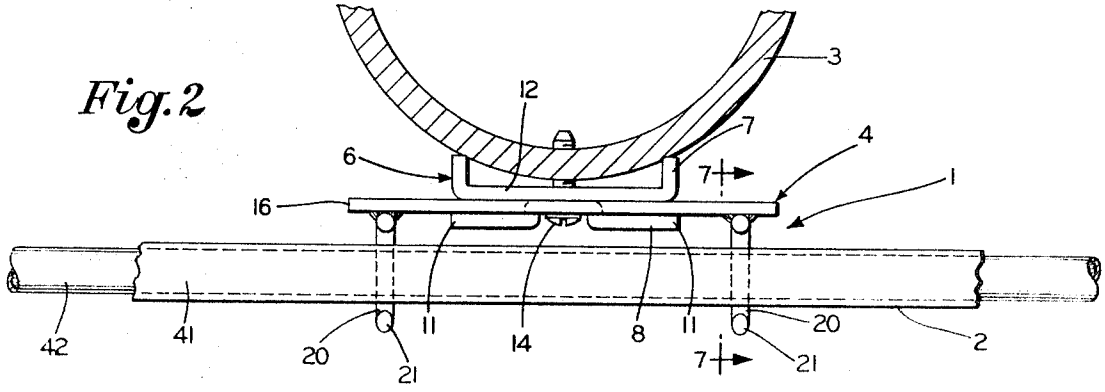


Fig. 6

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Fig. 2



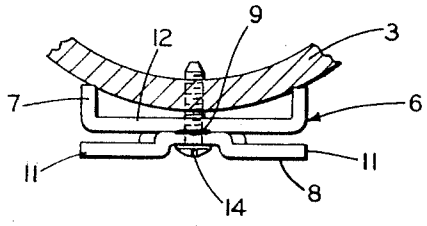


Fig. 5

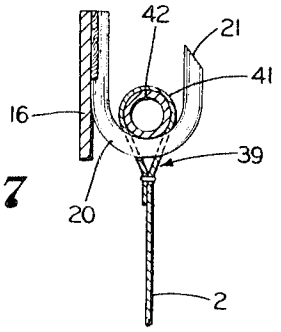


Fig. 7

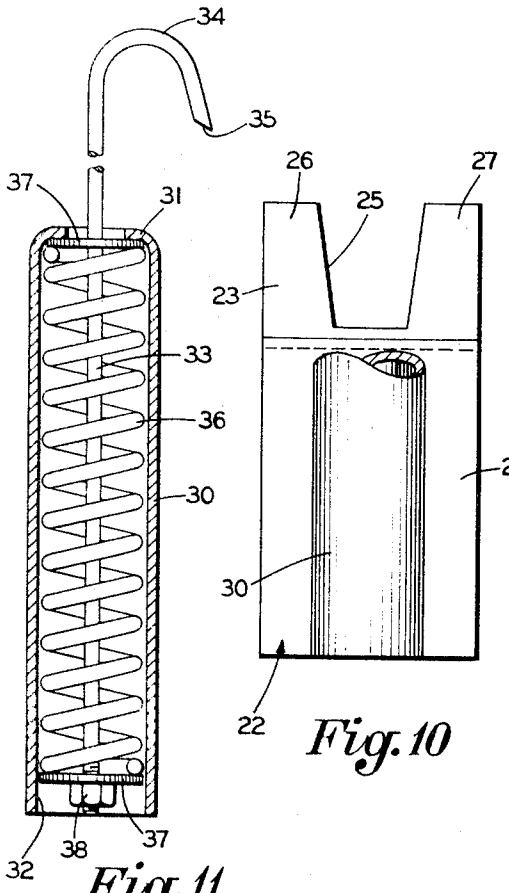


Fig. 11

Fig. 10

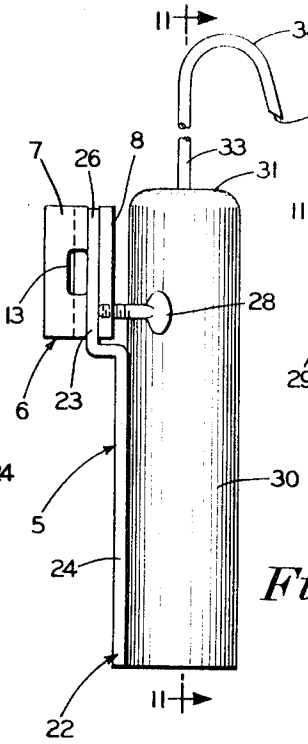


Fig. 9

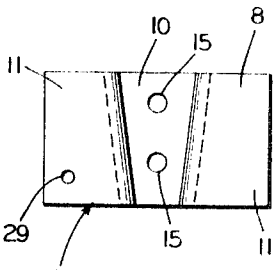


Fig. 8

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POLE BANNER SIGN CONSTRUCTION

CROSS-REFERENCE TO RELATED PATENTS

The invention involves improvements in the constructions shown in U.S. Pat. Nos. 2,764,830, 2,882,630, 2,893,147, and 3,310,899, and in our copending application Ser. No. 828,848 filed May 29, 1969 and now U.S. Pat. No. 3,581,420.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to a banner display sign mounted on a pole of a type wherein a flexible banner member is supported at its upper end and spring tensioned at its lower end on a pole, such as a light pole located at a gasoline service station, to display a series of appropriate advertising messages from time to time. A pole banner sign of this general type is shown in said U.S. Pat. No. 2,764,830. The flexible banner of such a pole banner sign should be tensioned and should be detachable readily and easily for changing the banner message from time to time in an advertising campaign wherein a series of signs is displayed.

It is desirable to provide permanent hardware components for supporting and mounting the flexible banner on the pole so that no hardware need be shipped with a replacement banner each time the banner is changed in an advertising campaign involving a series of banners. At the same time it is desirable that the pole present a neat and trim appearance without conspicuous unused parts when no sign is mounted and displayed on the pole.

Finally, to minimize production and shipping costs, the flexible banner component should have a simple rectangular shape on which the sign is printed or otherwise displayed, which readily can be folded into small package size for shipment, by mail when desired, in a relatively small envelope.

2. Description of the Prior Art

The prior art is well shown in the prior patents identified above. Many types and kinds of poles exist at various gasoline service stations located throughout the country. Any of such poles may be at the desired place or location for mounting a series of banner display signs. Many different types and kinds of poles are involved, such as tubular metal poles, either plain or corrugated, cylindrical or tapered, or generally circular or polygonal in cross section; or the poles may be wooden, or concrete, or plastic; and any such pole may have any desired configuration in size and cross section.

This involves problems in providing upper and lower support members for a banner, particularly when the support members must hold the upper and lower edges of a rectangular vertically extending flexible banner in substantially horizontally extending locations when the banner is mounted on the pole, and to at the same time provide permanent hardware for mounting the banner which is inconspicuous when not in use to support a banner.

These considerations thus have presented a need for rugged permanent hardware for mounting a flexible banner in tensioned position on a pole, which hardware except for a simple inconspicuous mounting plate may be removed when not in use, and which hardware readily may be used to change flexible banners from time to time without the use of any tools, and wherein the flexible banner per se may be folded in a small conveniently handled package for envelope shipping in order to repeatedly mount and display a series of different banners on the hardware in carrying out an advertising campaign.

SUMMARY OF THE INVENTION

Objectives of the invention include providing a pole banner sign construction which releasably suspends and mounts a flexible rectangular banner member or component in tensioned condition extending vertically on a pole with the banner located between upper and lower suspension or support means hardware of a permanent nature, the principal components of which are removably mounted on the pole; and in which successive banners may be mounted one replacing another without the use of any tools. Further objectives involve the use of hardware of a permanent nature, on which a banner may be mounted at its upper end, and in which the mounting means preferably involves only the engagement of a flexible banner by hook members which puncture or pierce the fabric banner component in mounting the same on the hardware.

Another objective is to reduce the cost of the replaceable banner members or components as well as shipping costs therefor, by providing for banner shipment in a condition folded to small package size which may be contained in a relatively small envelope without requiring shipment or replacement of rigid stick members heretofore necessary in replacing a banner supported on hardware mounted on a pole.

These objectives and advantages are attained by the pole banner construction, the general nature of which may be stated as including the combination of a flexible banner member component generally rectangular in shape, formed of foldable cloth, fabric, or plastic material having a hem at each of its upper and lower edges, a rigid preferably metal rod or tube pull stick member removably contained in the hem at each upper and lower banner edge; upper and lower hardware support and suspension means for the banner component adapted to be mounted on a pole, the upper and lower support means each comprising a mounting plate adapted to be permanently mounted on the pole; the upper support means including a suspension plate removably wedge-mounted on the upper mounting plate, and hook means on the suspension plate engageable with the hemmed edge and pull rod at the upper end of the banner component; the lower support means including a lower bracket wedge-mounted on the lower mounting plate, tube means fixed to the lower bracket, and spring tensioned hook means movable axially of said tube means for pierced hook engagement with the lower hemmed banner edge and pull rod.

BRIEF DESCRIPTION OF THE DRAWINGS

A preferred embodiment of the invention—illustrative of the best mode in which applicants have contemplated applying the principles—is set forth in the following description and shown in the drawings and is particularly and distinctly pointed out and set forth in the appended claims.

FIG. **1** is a perspective view of the improved pole sign construction;

FIG. **2** is an enlarged fragmentary sectional view looking down on the top of the pole sign in the direction of the arrows **2–2**, FIG. **1**;

FIG. **3** is a perspective view of the upper support hardware suspension plate for the banner;

FIG. **4** is a perspective view of one of the mounting plates oriented for use as a part of the upper support hardware of FIG. **3** detached from a pole;

FIG. **5** is a fragmentary plan view of the upper mounting plate of FIG. **4** mounted on a pole;

FIG. **6** is a rear view looking in the direction of the arrows **6–6**, FIG. **4**, of the upper mounting plate;

FIG. **7** is a fragmentary section taken on the line **7–7**, FIG. **2**;

FIG. **8** is a front view similar to FIGS. **4** and **6**, of one of the mounting plates oriented for use as a part of the lower support hardware shown in FIG. **1**, detached from a pole;

FIG. **9** is a side view of the lower support hardware, detached from a pole;

FIG. **10** is a fragmentary front view of lower hardware tensioning device shown in FIG. **9**, detached from the mounting plate; and

FIG. **11** is an enlarged sectional view taken on the line **11–11**, FIG. **9**, of the lower hardware tensioning device.

Similar numerals refer to similar parts throughout the drawings.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The improved pole banner construction generally is indicated at **1** wherein a flexible banner **2** is mounted on a pole **3**. The mounting means for flexible banner component **2** comprises upper support means generally indicated at **4** and lower support means generally indicated at **5**.

Referring to FIGS. **2** through **7**, the upper support means **4** includes mounting plate means generally indicated at **6** comprising a U-shaped member **7** having plate member **8** secured thereto preferably by spot welding as indicated at **9**. Member **8** has an offset portion **10** trapezoidal in shape converging toward the top as shown in FIG. **4** so that the wings **11** are spaced from the web **12** of channel-shaped member **7**. Apertures **13** may be formed in channel-shaped member **7**, as shown in FIGS. **4** and **6** for receiving a flexible strap sometimes used in attaching objects to poles. As shown, the mounting plate **6** is permanently mounted on the pole **3** by bolts **14** extending through holes **15** in mounting plate **6**.

The hardware upper support means assembly **4** also includes a suspension plate **16** (FIG. **3**) formed with a downwardly opening trapezoidal slot **17**. Plate **16** is attached to mounting plate means **6** by telescoping bifurcated portions **18** and **19** of plate **16** between the wings **11** and web member **12** of mounting plate means **6**, with the slot **17** wedge-fitting over the offset portion **10** of plate member **8** as shown in FIG. **2**. A pair of hook members **20** with sharpened points **21** are fixed to the outer or front surface of plate **16**.

Referring to FIGS. **8** to **11**, the lower support means **5** includes mounting plate means **6** which is the same as the upper mounting plate means but is oriented upside down as compared with the mounting plate means **6** used in the upper support means **4**. The orientation of the lower mounting plate means **6** is illustrated in FIG. **8**, and the lower mounting plate **6** may be permanently mounted on the pole **3** by bolts at a location generally shown in FIG. **1**.

The lower hardware support means assembly **5** also includes a lower bracket **22** (FIGS. **9** and **10**) having a backplate **23** and a lower baseplate **24**. An upwardly opening trapezoidal slot **25** is formed in the backplate **23**. Bracket **22** is attached to lower mounting plate means **6** by telescoping bifurcated portions **26** and **27** of backplate **23** between the wings **11** and the web member of mounting plate means **6**, with the slot **25** wedge-fitting over the offset portion **10** of plate member **8** of mounting plate means **6** as shown in FIG. **9**. Preferably setscrew **28** is threaded through an opening **29** in one of the wings of plate means **6** to hold members **6** and **22** assembled.

A tube member **30** necked in at **31** at its upper end and having a bottom opening **32** preferably is rigidly mounted on baseplate portion **24** of lower bracket **22** (FIG. **9**). A rod **33** extends axially into tube **30** and has a hook **34** at its upper end terminating in a point **35**. Rod **33** is surrounded by a spring **36** within tube **30** engaging washers **37** at the ends of spring **36**, and washers and spring are retained assembled to the rod **33** by locknut **38**.

In accordance with the invention, flexible banner component **2**, used to display a sign or an advertising message printed or otherwise carried thereon, preferably generally is rectangular in shape and formed of cloth, fabric, plastic, or other flexible material, so that it may be folded into a package small enough in size that it may be contained in a relatively small envelope. Banner component **2** has an upper edge **39** and a lower edge **40**, and banner component **2** is formed with hems **41** at the upper and lower edges **39** and **40**. The remaining hardware components for mounting the banner component **2** comprise rigid preferably metal rod or tube pull stick members removably contained in the hems **41** at the upper and lower banner edges, such pull stick rods being indicated at **42**.

In mounting a banner **2** on a pole **3**, two mounting plate members **6** oriented as described are permanently mounted on the pole **3** in the desired spaced relation as shown in FIG. **1**.

Support plate **16** of upper assembly **4** as shown in FIG. **3** is then wedge-mounted on the upper mounting plate **6** as shown in FIGS. **1** and **2**. The rigid pull rod **42** is then inserted in each of the banner hems **41**. The banner **2** is then secured on the hooks **20** as shown in FIGS. **1** and **7**, the hooks piercing the flexible material and being engaged beneath and holding or supporting or suspending the pull rod **42**.

The lower support means assembly **5** indicated in FIG. **9** is then wedge-mounted on the lower support means **6** and secured thereto by setscrew **28**. Spring tensioned hook member **34** then is engaged with the lower end of banner **2** centrally thereof and around pull rod **42** in the lower hem, the hook member **34** piercing the banner material in obtaining the engagement. If desired, the center of the lower pull rod **42** may be provided with an aperture through which hook member **42** may extend. Similar provisions may be made for engagement of the upper hooks **20** in apertures in the upper pull rod **42**, if desired.

The spring **36** in the lower support means tensioning device **5** maintains tension on banner **2** against flexing and movement of the banner due to wind forces or wind pressure.

As shown in FIG. **1**, it is usual to mount two banners back to back on any pole to display signs in opposite directions. This may be accomplished as illustrated in FIG. **1** by permanently mounting the upper and lower support means mounting plate means **6** back to back on either side of pole **3** for mounting two banners on the pole.

Advertising campaigns conducted through point-of-purchase advertising at gasoline or service stations frequently involve the successive display of a series of advertising messages. In accordance with the invention, this may be accomplished merely by replacing banners **2** with new banners from time to time. Such replacement is performed readily, quickly, and easily merely by unhooking the banners from the hooks **20** and **34**, and inserting the pull rods **42** from initial banner members **2** into the hems of replacement banners **2** and then engaging the new banners **2** on the support hooks **20** and **34**. No tools of any nature whatsoever are required to make the banner change, all hardware being present at or remaining on the pole.

If it is not desired to display a banner on the pole **3** for a period of time, banners **2** may be removed and the pull rods **42** and upper and lower assemblies **4** and **5** stored at the service station with the mounting plate means **6** only remaining on the pole in an inconspicuous manner.

Accordingly, the new pole sign construction provides an arrangement in which permanent hardware is provided for mounting a banner on a pole, and only the flexible banners per se are changed and discarded for changing the sign displayed; provides a construction in which the hardware components permanently mounted on the pole are very inconspicuous and the remaining permanent hardware may be conveniently stored for subsequent use; provides a construction in which the flexible banner component may be mounted at its top edge and tensioned on the pole to accommodate wind forces; provides a banner component which may be folded into a small package and shipped in an envelope to the place of use; provides a new construction having reduced banner and banner shipment costs; provides a construction which may be readily mounted on any kind, or type, or size, or material of existing pole; and provides a construction eliminating difficulties present with prior devices, and which achieves the objectives stated and solves existing problems in the art.

In the foregoing description certain terms have been used for brevity, clearness and understanding; but no unnecessary limitations are to be implied therefrom beyond the requirements of the prior art, because such terms are used for descriptive purposes and are intended to be broadly construed.

Moreover, the description and illustration of the invention is by way of example, and the scope of the invention is not limited to the exact details shown or described.

Having now described the features, discoveries and principles of the invention, the manner in which the improved pole sign construction is constructed and used, the characteristics

of the new construction, and the advantageous, new and useful results obtained; the new and useful structures, devices, elements, arrangements, parts and combinations, are set forth in the appended claims.

We claim:

1. Pole sign construction of a type in which a flexible banner is removably mounted and tensioned on a pole; including a rectangular flexible banner formed with a hem at each of its upper and lower edges; rigid pull rod means removably mounted in each hem; upper and lower hardware support means for the banner each having a mounting plate comprising a channel-shaped member and a plate member having a central trapezoidal-shaped offset portion, and means connecting said trapezoidal-shaped offset portion to the back of the web of the channel-shaped member adapted to be permanently mounted on a pole; the trapezoidal-shaped offset portion of the upper mounting plate converging toward the top and the trapezoidal-shaped offset portion of the lower mounting plate converging toward the bottom, the upper support means including a suspension plate with a downwardly opening trapezoidal-shaped slot therein removably mounted on the trapezoidal-shaped offset portion of the upper mounting plate, and hook means on the suspension plate releasably engaged with the banner upper hemmed edge and pull rod; and the lower support means including spring tensioned hook means having an upwardly opening trapezoidal slot therein removably mounted on the trapezoidal-shaped offset portion of the lower mounting plate releasably engaged with the banner lower hemmed edge and pull rod, the upper and lower mounting plates being spaced at a given distance to permit the spring tensioning to take effect.

2. Pole sign construction of a type in which a flexible banner is removably mounted and tensioned on a pole; including a rectangular flexible banner formed with a hem at each of its upper and lower edges; rigid pull rod means removably mounted in each hem; upper and lower hardware support means for the banner each having a mounting plate comprising a channel-shaped member and a plate member having a central trapezoidal-shaped offset portion, and means connecting said trapezoidal-shaped offset portion to the back of the web of the channel-shaped member adapted to be permanently mounted on a pole; the trapezoidal-shaped offset portion of the upper mounting plate converging toward the top and the trapezoidal-shaped offset portion of the lower mounting plate converging toward the bottom, the upper support means including suspension means with a downwardly opening trapezoidal-shaped slot therein removably wedge-mounted on the trapezoidal-shaped offset portion of the upper mounted plate, and a pair of hooks on the suspension means releasably engaged with the banner upper hemmed edge and pull rod, and the lower support means including spring tensioned hook means having an upwardly opening trapezoidal slot therein removably mounted on the trapezoidal-shaped offset portion of the lower mounting plate releasably engaged with the banner lower hemmed edge and pull rod, the upper and lower mounting plates being spaced at a given distance to permit the spring tensioning to take effect.

3. Pole sign construction of a type in which a flexible banner having upper and lower hemmed edges is removably mounted and tensioned on permanent hardware means for the sign mounted on a pole; the permanent hardware means including upper and lower pull rods adapted to be telescoped into the hemmed edges of a banner; upper and lower support means each having a mounting plate comprising a channel-shaped member and a plate member having a central trapezoidal-shaped offset portion, and means connecting said trapezoidal-shaped offset portion to the back of the web of the channel-shaped member adapted to be permanently mounted on a pole, the trapezoidal-shaped offset portion of the upper mounting plate converging toward the top and the trapezoidal-shaped offset portion of the lower mounting plate converging toward the bottom, and a suspension plate with a downwardly opening trapezoidal-shaped slot therein removably mounted on the trapezoidal-shaped offset portion of the upper mounting plate; the upper support means including hook means on the suspension plate adapted to be releasably engaged with the banner upper hemmed edge and pull rod; and the lower support means including a tube mounted on a lower bracket having an upwardly opening trapezoidal slot therein mounted on the trapezoidal-shaped offset portion of the lower mounting plate and spring tensioned hook means mounted in and projecting from the tube means adapted to be releasably engaged with the banner lower hemmed edge and pull rod, the upper and lower mounting plates being spaced at a given distance to permit the spring tensioning to take effect.

4. Pole sign construction of a type in which a flexible banner having upper and lower hemmed edges is removably mounted and tensioned on permanent hardware means for the sign mounted on a pole; the permanent hardware means including upper and lower pull rods adapted to be telescoped into the hemmed edges of a banner; upper and lower support means each having a mounting plate comprising a channel-shaped member and a plate member having a central trapezoidal-shaped offset portion, and means connecting said trapezoidal-shaped offset portion to the back of the web of the channel-shaped member adapted to be permanently mounted on a pole, the trapezoidal-shaped offset portion of the upper mounting plate converging toward the top and the trapezoidal-shaped offset portion of the lower mounting plate converging toward the bottom, and a suspension plate having a trapezoidal slot therein removably mounted on each mounting plate; the upper support means also including a pair of hooks on the upper suspension plate adapted to be releasably engaged with the banner upper hemmed edge and pull rod; and the lower support means including spring tensioned hook means mounted on the lower suspension plate adapted to be releasably engaged with the banner lower hemmed edge and pull rod, the upper and lower mounting plates being spaced at a given distance to permit the spring tensioning to take effect.

5. Pole sign construction of a type in which a rectangular flexible banner having upper and lower hemmed edges is removably mounted and tensioned on hardware means for the sign mounted on the pole; including upper and lower rigid pull rod means removably mounted in the hemmed edges of the banner, upper and lower hardware support means for the banner, each support means including a mounting plate comprising a channel-shaped member and a plate member having a central trapezoidal-shaped offset portion, means connecting said trapezoidal-shaped offset portion to the back of the web of the channel-shaped member whereby the opposite end portions of the plate member form wings spaced from the channel-shaped member, means permanently mounting the mounting plates on the pole, the trapezoidal-shaped offset portion of the upper mounting plate converging toward the top and the trapezoidal-shaped offset portion of the lower mounting plate converging toward the bottom, the upper support means including an upper suspension plate with a downwardly opening trapezoidal slot therein, said upper suspension plate being received between said wings and the web of the channel-shaped member with the slot wedge fitting over the offset portion, hook means on the upper suspension plate releasably engaged with the banner upper hemmed edge and pull rod, the lower support means including a lower bracket having an offset backplate at its upper end, said backplate having an upwardly opening trapezoidal slot therein, said backplate being received between the wings and the web of the lower mounting plate means with the slot fitting over the trapezoidal offset portion thereof, and spring tensioned hook means carried by said lower bracket and releasably engaged with the banner lower hemmed edge and pull rod, the upper and lower mounting plates being spaced at a given distance to permit the spring tensioning to take effect.

6. Pole sign construction as defined in claim 5 in which the spring tensioned hook means carried by the lower bracket comprises an upright tube member rigidly connected to the

lower bracket, a rod located through the tube member and having a hook at its upper end and a coil spring within the tube member surrounding said rod, washers at the end of said coil spring and a nut upon the lower end of the rod.

7. Pole sign construction as defined in claim 5 in which the means permanently mounting the mounting plates on the pole comprises screws located through the trapezoidal-shaped offset portion of each plate member and through the central portion of the corresponding channel-shaped member and into the pole.