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2,954,626

HORIZONTAL BANNER MOUNTING CONSTRUCTION

Filed March 31, 1958

2 Sheets-Sheet 1

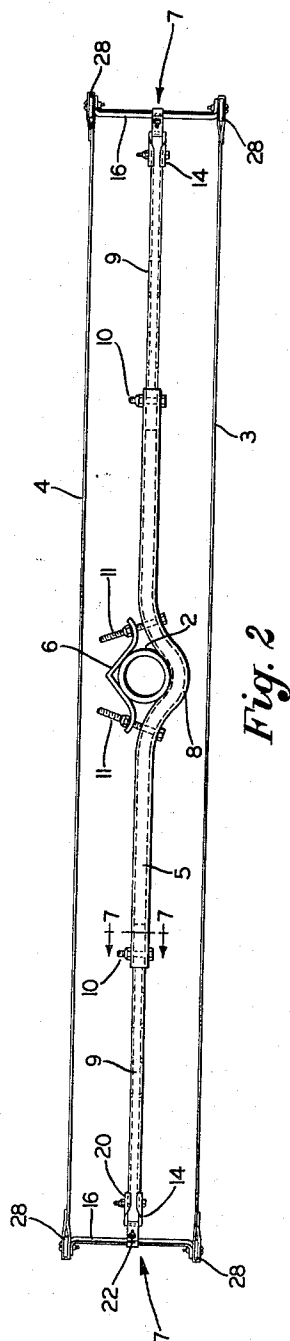


Fig. 2

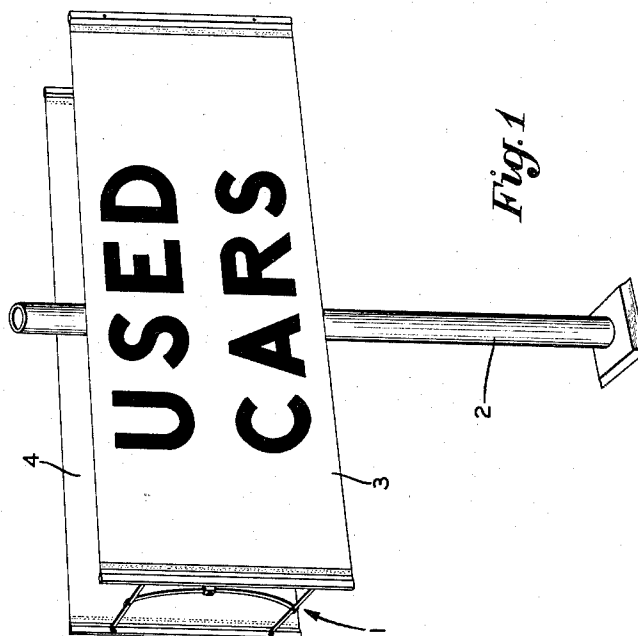


Fig. 1

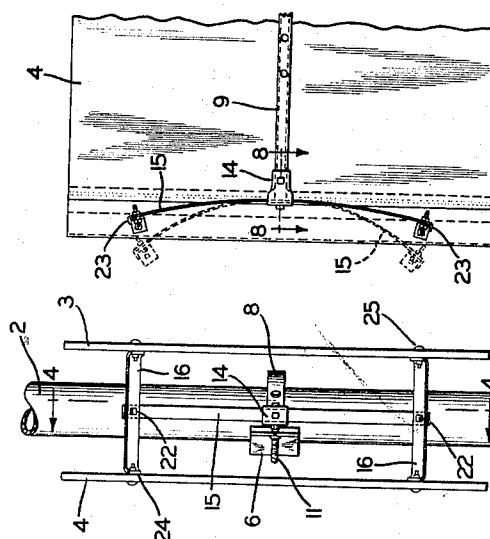


Fig. 4

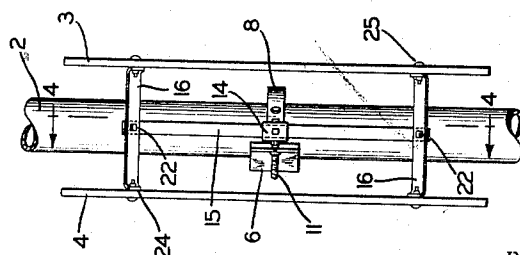


Fig. 3

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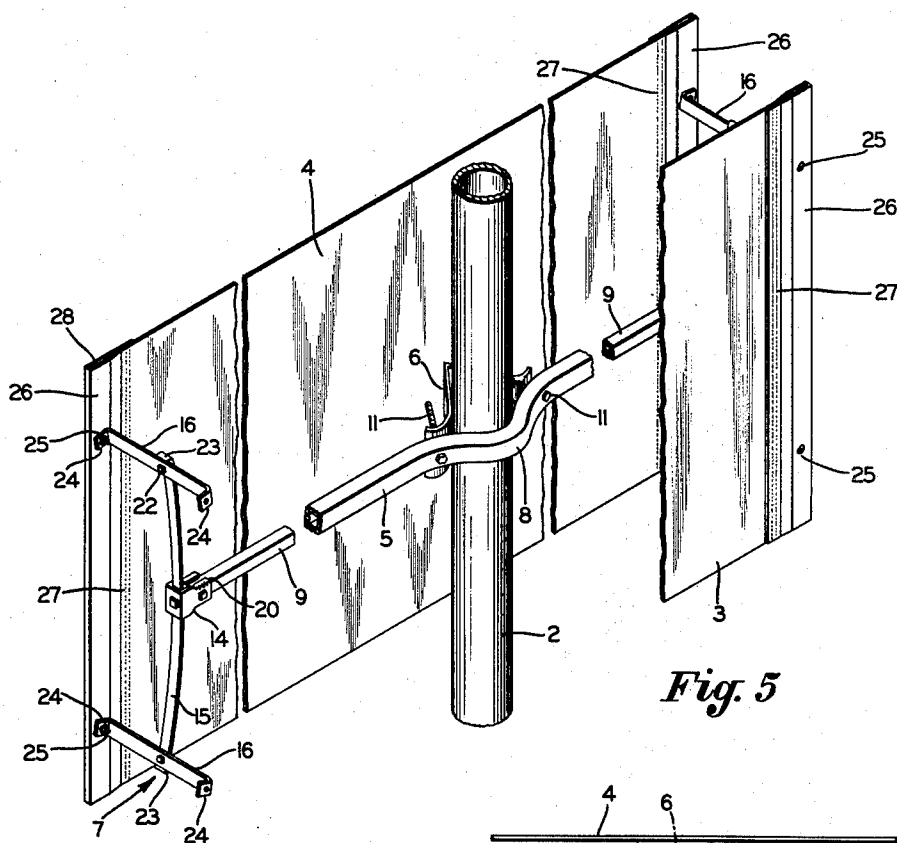


Fig. 5

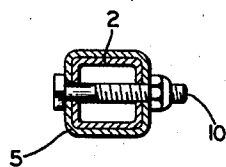


Fig. 7

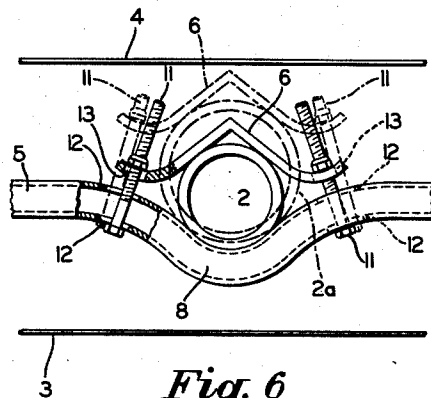


Fig. 6

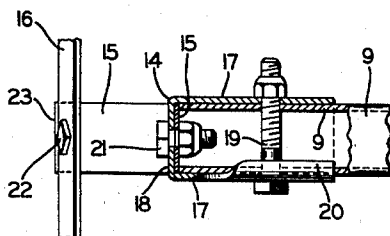


Fig. 8

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HORIZONTAL BANNER MOUNTING CONSTRUCTION

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2 Claims. (Cl. 40—125)

This invention relates to a mounting construction for banners and signs. More particularly it pertains to means for tensionally mounting horizontal banners on a single horizontal support arm mounted on a single vertical standard.

Banners or signs composed of flexible sheetlike material such as cloth have been used for advertising with increasing favor because they are inexpensive. The signs can be installed and replaced at relatively frequent intervals where desirable such as in an advertising campaign.

Prior flexible signs have been mounted between two permanent poles or standards such as located on the premises of a filling station. Later the signs were mounted on a single pole, for which reason they were elongated members extending vertically over a portion of a pole on which they were mounted, as for example a vertical sign disclosed in Patent No. 2,764,830.

Inasmuch as horizontal signs are more easily and quickly read than vertical signs, a recent tendency has been to mount elongated banners horizontally on a single vertical pole or standard.

It has been found, however, that one difficulty with mounting elongated banners horizontally on a single upright pole has been the provision of a satisfactory support frame for maintaining the banner tautly in place on the pole. Specifically, the problem exists because, unlike the vertically mounted sign where the pole itself serves as a frame to which opposite ends of the banner are attached, the horizontal sign requires an additional horizontal frame member mounted on the pole and having appropriate spring means for maintaining tension at all times in the flexible banner.

Other factors also have complicated the achievement of a suitable supporting frame. For one thing, the frame must be sufficiently rigid to withstand the effects of all weather conditions including sun, rain, and wind which are continuously acting upon the flexible material of the sign and causing deterioration such as expansion and contraction of the material itself. Moreover, the frame must support two spaced signs in such a manner that no contact is possible between the signs and the frame because such contact, if frequent, results in speedy deterioration of the sign itself. Furthermore, the frame must be sufficiently rigid to maintain the signs intact in windy weather. For that purpose the frame must be provided with tensioning means which yield temporarily to the effects of wind on the surface of the sign and subsequently return the sign to the taut position when the wind has subsided. Accordingly, there has been a need for a horizontal frame which reduces to a minimum the deteriorating effects of the weather on flexible banners and signs.

There has also been a need for a horizontal banner frame which is of knockdown and lightweight construction to permit ready shipping to a customer and which at the same time is sufficiently rigid and permanent that it

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can be used repeatedly with replacements of the flexible banners that deteriorate relatively frequently due to uncontrollable weather conditions such as fading in the sun.

Accordingly, it is a general object of this invention to provide a horizontal banner tender on which a flexible banner or sign may be mounted tautly and horizontally on a single pole.

It is another object of this invention to provide a horizontal banner tender on which a flexible banner or sign may be mounted tautly and free from contact with the mounting frame.

It is another object of this invention to provide a horizontal banner tender having banner tensioning means which require a minimum of manipulation during installation of a flexible banner on the frame.

It is another object of this invention to provide a horizontal banner mounting construction which includes a single horizontal frame or arm centrally mounted on a vertical pole, which arm is sufficiently rigid to maintain a pair of spaced banners tautly in position on opposite sides of a pole.

It is another object of this invention to provide an improved horizontal banner mounting construction which has a minimum of parts and which obtains the foregoing desiderata in an effective and inexpensive manner.

These and other objects and advantages apparent to those skilled in the art from the following description and claims may be obtained, the stated results achieved, and the described difficulties overcome by the discoveries, principles, apparatus, parts, combinations, subcombinations, and elements which comprise the present invention, the nature of which is set forth below in the following statement, a preferred embodiment in which—illustrative of the best mode in which applicant has contemplated applying the principles—is set forth in the following description, and which is particularly and distinctly pointed out and set forth in the appended claims forming part hereof.

The banner mounting construction of the present invention may be stated in general terms as including an upright pole or standard, two horizontal flexible banner components, means for mounting the banner components on a pole including a single elongated horizontal arm mounted on the pole, the arm extending from each side of the pole, a leaf spring centrally attached to each end of the arm, the spring being substantially vertically disposed and having upper and lower end portions above and below the arm which are spring-biased outwardly from the pole, a spreader on each end of each spring extending transversely of a vertical plane passing through the axes of the springs, arm, and pole, the spreaders being of substantially equal length, one banner component mounted on and between the ends of the spreaders on one side of the pole, the other banner component mounted on and between the ends of the spreaders on the other side of the pole, and the spreaders being attached to the ends of the banner components and constituting the only contact therewith.

The preferred embodiment of the invention is illustrated by way of example in the accompanying drawings wherein:

Figure 1 is a perspective view of a vertical pole having a pair of horizontal banner components mounted thereon;

Fig. 2 is an enlarged plan view of the assembly showing the manner in which a pair of spaced banner components are tautly disposed on opposite sides of the pole;

Fig. 3 is an enlarged end view;

Fig. 4 is a fragmentary vertical section taken on the line 4—4 of Fig. 3;

Fig. 5 is an enlarged fragmentary perspective view of the mounting means with one banner component broken away;

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Fig. 6 is an enlarged fragmentary plan view, partly in section, showing the manner in which the mounting bracket is adapted for poles of varying diameter;

Fig. 7 is an enlarged vertical section taken on the line 7—7 of Fig. 2; and

Fig. 8 is an enlarged fragmentary horizontal section taken on the line 8—8 of Fig. 4.

Similar numerals refer to similar parts throughout the several views of the drawings.

A horizontal banner tender is generally indicated at 1 in Fig. 1 and is mounted on a round pole or standard 2 for supporting a pair of spaced banner components or signs 3 and 4. Each sign 3 and 4 is composed of cloth or other flexible sheet-like material. The banner tender 1 includes an elongated arm 5, a bracket or clamp plate 6, and spring-biased attaching means generally indicated at 7 at each outer end of the arm 5.

As shown in Fig. 2, the arm 5 is an elongated tubular member having a central curved portion 8 which is adapted to engage one side of the pole or standard 2. The ends of the arm 5 are open and receive arm extensions 9 which are likewise tubular members telescopically disposed within the arm 5 where they are secured at the desired length by means of bolts 10. The outer ends of the arm extensions 9 have the attaching means 7 secured thereto.

The clamp plate 6 is a V-shaped member for engaging the side of the pole opposite that of the curved portion 8 of arm 5. The ends of the plate 6 are secured to the arm 5 by similar bolts 11. As shown in Fig. 6, the mounting bracket 6 together with the bolts 11 are adapted for mounting on poles 2 of varying diameter. For that purpose the arm 5 is provided with aligned slotted openings 12 on opposite sides. The end portions of the plate 6 are also provided with openings 13. The elongated bolts 11 extend through corresponding pairs of openings 13 substantially as shown, whereby the bracket 6 and bolts 11 in combination with the curved portion 8 of the arm 5 provide a clamp means on the pole 2. By providing slotted openings 12 and 13, the bolts 11 are adjustable to slightly different positions where a pole 2a of larger diameter is used, as shown by the broken line portions of Fig. 6.

As shown in Fig. 5, the attaching means 7 includes a clamp 14, a leaf spring 15 extending above and below the clamp, and a pair of banner spreaders or spacers 16, one attached at each end of the spring 15. The clamp 14 is a U-shaped member having similar sides 17 and a base 18. The clamp is mounted over the open end of the extension arm 9 with the sides 17 adjacent the end portions of the arm where they are secured by a bolt 19. The assembly of the arm and clamp is reinforced by providing side flanges 20 on opposite edges of the sides 17.

The leaf spring 15 is secured to the end of the arm 9 by the clamp 14 as shown in Fig. 8. The base 18 of the clamp 14 and the leaf spring 15 have aligned apertures through which extends a bolt 21. The leaf spring 15 is thereby secured between the base 18 and end of the arm 9 as well as between opposite sides 17 of the clamp 14. In this manner the leaf spring 15 is not free to rotate but rather is held fixedly in place in a vertical plane which passes through the arm extensions 9 and the arm 5. As shown in Fig. 4, the end portions of the leaf spring 15 are free to yield in the above-described vertical plane. The unrestricted positions of the upper and lower end portions of the spring 15 are shown by broken lines. The restricted positions of the end portions with banner attached are shown in solid lines. Thus the leaf spring 15 applies a longitudinal thrust away from the pole 2 on the ends of the banners 3 and 4 to hold them tautly in place.

Each spreader or spacer 16 is bolted at 22 to an end of the leaf spring 15. To prevent the spreaders from rotating about the bolts 22, the ends of the spring 15 are provided with flanges 23 which hold the spreaders 16

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substantially horizontally in place. The extremities of the spreaders also have similar flanges 24 that are apertured to permit attachment of mounting bolts 25 (Fig. 5) extending through the end portions of the banners 3 and 4.

As shown in Figs. 2 and 5, each banner or sign 3 and 4 is provided with a sleeve or hem 26 at each end by sewing one or more rows of stitches 27 substantially perpendicular to the longitudinal axis of each banner on the folded end portion thereof. An elongated wooden stick 28 or other rigid member extends through each sleeve 26 and both the stick and sleeve are apertured at locations aligned with the apertures in the flanges 24 of the spreader 16 for insertion of the bolts 25.

The foregoing construction of the banner tender is an improvement over prior constructions because it constitutes an effective means for mounting pairs of flexible banners or signs horizontally for display of advertising matter on a single upright pole. The horizontal frame including the arm 5 and arm extensions 9 at each end of the arm are readily adapted for shipment in a relatively small container and for easy assembly and mounting on a pole at location with a minimum of parts and instructions.

The banner mounting construction of the present invention provides a single horizontal arm with spring-biased means at opposite ends, which means performs the tri-fold function of mounting the banners in a boxlike assembly on opposite sides of a pole, holding the banners tautly in place for easy reading of advertising copy thereon, and for holding the banners out of contact with the pole and the mounting arm. Otherwise, frequent contact or vibration of the banners with any part of the pole or mounting arm would induce premature deterioration of that part of the banners.

Finally, by providing a single leaf spring at each end of the single horizontal arm, together with the banner spreaders on the ends of the spring, the tensioning means for the banners is spaced from immediate contact with the banners themselves and thereby facilitates the mounting of the banners on the frame and minimizes the contact of the banners with the banner tender.

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

Moreover, the embodiment of the improved construction illustrated and described herein is by way of example and the scope of the present invention is not limited to the exact details of construction shown.

Having now described the features, constructions, and principles of the invention, the characteristics of the new horizontal banner tender construction, and the advantageous, new and useful results provided; the new and useful discoveries, principles, parts, elements, combinations, subcombinations, structures and arrangements, and mechanical equivalents obvious to those skilled in the art are set forth in the appended claims.

I claim:

1. Horizontal banner tender construction for mounting on an upright standard including two banners composed of flexible material, means for holding the banners in two spaced taut positions on opposite sides of a standard and including one elongated arm substantially coextensive with the banners, adjustable means for mounting the arm horizontally on a standard of variable diameter and at any location on a standard, a leaf spring centrally attached to each end of the arm with upper and lower spring end portions extending in a substantially vertical plane, means for holding the leaf springs against rotation and in the same plane, a transverse spreader rigidly mounted on the end of each spring in a non-rotatable manner, each spreader having end portions extending from opposite sides of each spring, and one banner being mounted on and extending tautly between the ends of the spreaders

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on one side of the arm and the standard and the other banner being mounted on and extending tautly between the ends of the spreaders on the other side of the arm and the standard.

2. The construction set forth in claim 1 in which the elongated arm includes end portions telescopically mounted in an intermediate portion, and in which the mounting means for the arm includes a curved section in the intermediate portion of the arm and a detachable clamp plate engageable with the opposite side of the standard.

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