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HORIZONTAL BANNER MOUNTING CONSTRUCTION

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2 Sheets-Sheet 1

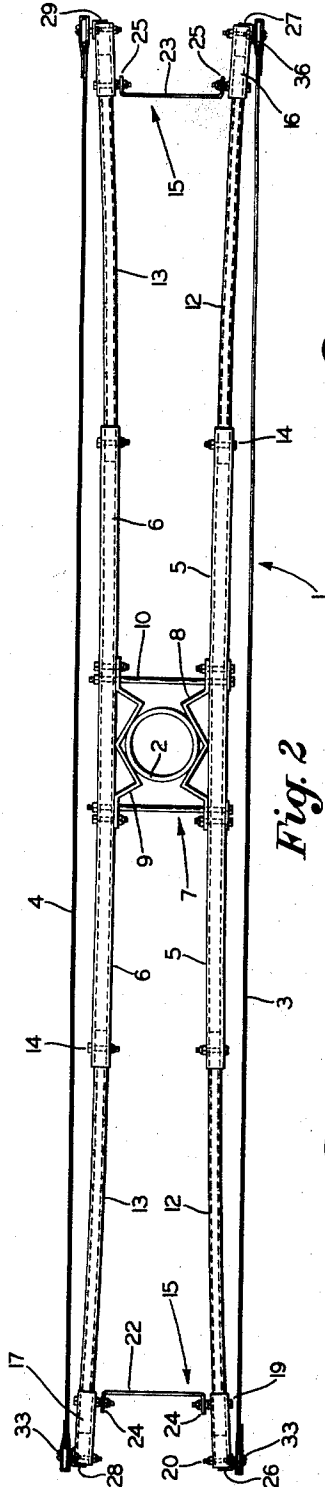


Fig. 2

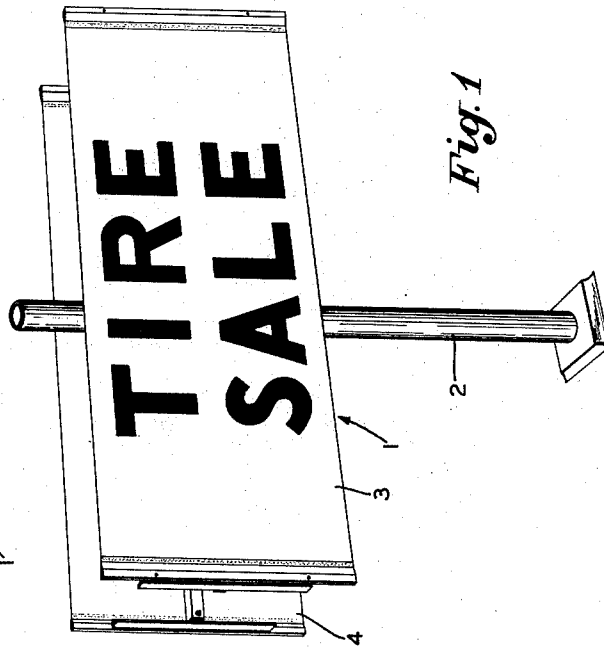


Fig. 1

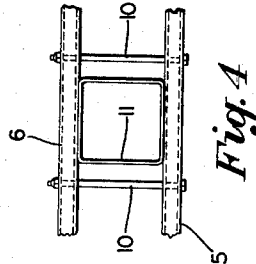


Fig. 4

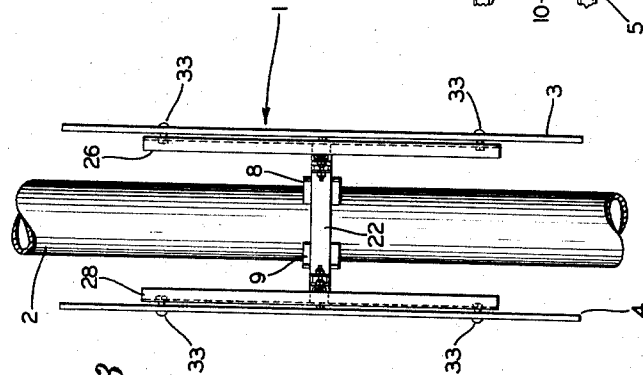


Fig. 3

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1 Claim. (Cl. 40—125)

This invention relates to a mounting construction for banners and signs, and more particularly it pertains to a means for tensionally mounting horizontal banners on a single vertical standard.

Flexible banners and signs composed of cloth or other sheetlike material have been used extensively as temporary advertising media when mounted on a permanent pole or standard. The signs were first used between two spaced poles to which their opposite ends were attached. Later the signs were adapted for use on a single pole or standard, for which reason the signs were generally elongated vertical members to extend over a longitudinal portion of a single pole on which they were mounted as for example a vertical sign disclosed in Patent No. 2,764,830.

Vertical signs, however, are not usually suitable for all advertising messages because more signs are more difficult to read vertically than horizontally. For that reason, flexible banners or signs have been adapted for horizontal use on a single vertical pole or standard.

One difficulty involved in adapting a horizontally disposed flexible banner on a single vertical pole or standard has been maintaining the banner tautly in place on the pole. Weather conditions must be compensated for and a frame for mounting the banner must include means for yieldingly engaging the flexible banners so that weather conditions such as sun, rain, and wind, involving expansion and contraction of the material comprising the sign, may not deteriorate the sign in an unreasonably short time.

Another difficulty in the past has been the problem of mounting flexible banners on horizontal support frames as easily as possible and with a minimum of tools and instructions. A problem relating to the foregoing involves the proper location of tensioning means for maintaining the banner tautly at all times while being yieldable to gusts of wind. It has been found that most of the difficulty involved heretofore is eliminated by providing the mounting frame with built-in tensioning means that requires a minimum of manipulation when attaching a flexible banner to the frame.

It is a general object of this invention to provide a horizontal banner tender on which a sign or banner 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 sign or banner may be mounted tautly in a flat plane free from contact with the mounting means.

It is another object of this invention to provide an improved horizontal banner tender having banner tensioning means installed in the banner mounting frame for minimizing manipulation thereof when installing a flexible banner on the frame.

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

These and other objects and advantages apparent to those skilled in the art from the following description

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and claim 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, preferred embodiments of which—illustrative of the best mode in which applicant has contemplated applying the principles—are set forth in the following description, and which are particularly and distinctly pointed out and set forth in the appended claim forming part hereof.

Generally, the banner mounting construction of the present invention may be stated as including an upright pole or standard, two horizontal banner components, means for mounting the banner components on the pole including a pair of elongated horizontal arms mounted on diametrically opposite sides of the pole, the arms extending from each side of the pole and having spaced aligned extremities, a spacer extending between the aligned extremities of each pair of arms, the spacers being longer than the diameter of the pole, the arms having a bowed or arcuate shape and being disposed in a horizontal plane, each arm having an end portion telescopically mounted and spring-biased outwardly from the pole, a vertical support at each extremity of each arm, each support having a right-angled transverse cross section, one banner component extending tautly between the vertical supports of one arm and the other banner component extending tautly between the supports of the other arm, each banner component having an aperture at four corners adjacent one flange of the corresponding vertical support, the banners being bolted to the vertical supports through said apertures, whereby the banner components are tautly disposed on the pole in parallel planes spaced from each other and the pole and contacting no part of the mounting means except the vertical supports.

The preferred embodiments of the invention are 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 of the assembly;

Fig. 4 is a fragmentary plan view of another embodiment showing the manner in which the frame may be mounted on a pole of rectangular cross section;

Fig. 5 is an enlarged fragmentary perspective view of the mounting members without the sign components;

Fig. 6 is a horizontal sectional view taken on the line 6—6 of Fig. 5;

Fig. 7 is an enlarged fragmentary perspective view of another embodiment of the unit shown in Fig. 5 with one banner component broken away; and

Fig. 8 is an enlarged horizontal sectional view taken on the line 8—8 of Fig. 7.

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

In Fig. 1 a horizontal banner tender generally indicated at 1 is mounted on a vertical, round pole or standard 2 on which a pair of spaced banner components or signs 3 and 4 are mounted for advertising purposes. The signs 3 and 4 are composed of a flexible sheetlike material such as cloth. The banner tender 1 has means for mounting the signs 3 and 4 including a pair of elongated arms 5 and 6 mounted on diametrically opposite sides of the pole 2 by attaching means generally indicated at 7. The means 7 includes a pair of spaced clamp brackets 8 and 9 secured to arms 5 and 6 respectively, and a pair of spaced clamp bolts 10 by which the banner tender 1 is tightly held in place on the pole 2 as shown in Fig. 2.

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The clamp brackets 8 and 9 have a generally M shape to provide a plurality of surfaces for engaging the round pole 2.

Where a pole 11 (Fig. 4) has a square or rectangular cross section rather than round, the clamp brackets 8 and 9 may be omitted so that the inner facing sides of the arms 5 and 6 are in direct contact with the outer opposite sides of the pole 11.

As shown in Fig. 2, the arms 5 and 6 have similar extensions 12 and 13 respectively, at opposite ends. The arms 5 and 6 (Fig. 5) and the extensions 12 and 13 are square tubular members telescopically fitted together and secured by similar bolts 14.

In addition, the banner tender has means 15 for yieldingly holding the vertical supports on the arms remote from each other and thereby holding the banner components in a flat taut plane as shown in Fig. 1. For that purpose, the opposite extremities of each arm 5 and 6 include end portions 16 and 17 respectively (Fig. 5) which portions are tubular and telescopically mounted on the outer ends of the extensions 12 and 13. A helical spring 18 is mounted within the tubular end portion 16 as shown in Fig. 6. One end of the spring 18 is in abutment with a bolt 19 that holds the end portion 16 slidably on the extension 12. The other end of the spring 18 abuts a bolt 20. The end portion 16 is provided with a pair of similar slots 21. The bolt 19 extends through the slots so that the end portion 16 may be pressed to the right as shown in Fig. 6, against the force of the spring 18 when a banner component is mounted on the banner tender 1. Upon release of the end portion 16, the spring 18 returns the end tubular portion 16 outwardly to the fully extended position as shown in Fig. 6, whereby the banner component is held flat and taut.

The outer extremities of the extensions 12 and 13 are preferably equally disposed from the pole 2 and a spacer 22 extends between the extensions 12 and 13 on one side of the pole 2. A similar spacer 23 (Fig. 2) is disposed between the extensions 12 and 13 on the other side of the pole. The spacers 22 and 23 have similar end flanges 24 and 25 respectively, which are apertured for connection with bolts 19 (Fig. 6). The spacers 22 and 23 reinforce the outer extremities of the boxlike assembly of the banner tender. The spacers 22 and 23 also are substantially longer than the clamp bolts 10 at the pole 2 so that the assemblies of the arms 5 and 6 with their extensions 12 and 13 are bowed or arcuate, each with its convex side adjacent the pole. Thus the banner components 3 and 4 are supported in flat, taut, parallel planes spaced from the pole as well as from the means 7 for mounting the components.

The means 7 for mounting the banner components 3 and 4 also include a pair of vertical supports 26 and 27 at remote extremities of the extensions 12 (Fig. 2). Likewise, a pair of vertical supports 28 and 29 are provided at opposite ends of the extensions 13. The supports 26—29 are preferably right-angle members as shown in Fig. 5 and each support includes legs 30 and 31 disposed preferably at right angles to each other. The legs 30 are disposed against the outer side of the end portion 16 where they are retained by the bolts 20. The legs 31 are adjacent the outer extremities of the end portions 16 and 17 as shown in Fig. 6. In addition, an aperture 32 is provided at opposite ends of the vertical supports in the legs 30, whereby the banners are attached to the supports 26—29 by similar bolts 33 as shown in Fig. 3.

Each banner component 3 and 4 includes a sleeve or hem 34 at each end which is provided by sewing one or more rows of stitches 35 substantially perpendicular to the longitudinal axis of each component by folding over each end portion thereof. An elongated rigid member 36 such as a wooden stick extends through each sleeve 34. The members 36 and sleeve 34 have aligned apertures near each end of the members. The bolts 33 extend through said apertures and a corresponding aligned aper-

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ture 32 in the vertical support, whereby the banner components 3 and 4 are secured to the banner tender.

The foregoing embodiment may be modified to eliminate the vertical supports 26—29 and the rigid members 36 bolted directly to the end portions 16 and 17 by bolts 20 where the rigid members 36 are of sufficient strength to warrant the elimination of the reinforcement provided by the supports 26—29. In such a construction the banner components 3 and 4 would be held tautly in parallel planes in a manner similar to that shown in Fig. 2 due to the action of the springs 18.

Another embodiment of the invention is shown in Fig. 7 in which a pair of extensions 12a and 13a similar to extensions 12 and 13 are provided without the means 15 including the end tubular portions 16 and 17 and springs 18 for holding the banners in tension. One end of each extension 12a and 13a is provided with a vertical support such as the support 29a as shown in Fig. 7. The opposite end of each extension 12a and 13a has means for holding the banners in tension including leaf springs 37 and 38 respectively. The springs 37 and 38 are arcuate with a similar loop 39 at opposite ends. The loops are in substantial alignment with apertures in the sleeve and rigid member of the sign so that said apertures and a corresponding loop 39 may be secured together by a bolt 40 as shown in Figs. 7 and 8.

The manner in which the springs 37 and 38 are secured to the end of the extensions 12a and 13a, respectively, is shown in Fig. 8. An angle member 41 is attached to the end of the extension 12a by a bolt 42. The member 41 has a leg 43 which is apertured to receive a bolt 44. The bolt 44 secures a second angle member 45 and the spring leaf 37 in place, which members are provided with aligned apertures for the bolt 44. The angle member 45 has a flange 46 that is in abutment with and extends over a substantial portion of one side of the leaf spring 37 to prevent the spring from rotating about the bolt 42, thereby maintaining the leaf spring 37 vertical at all times.

The foregoing construction including the leaf springs 37 and 38 constitutes an alternative form of providing the banner tender with spring mounting means. By using the leaf springs 37 and 38 rather than the means 15 including the end portion 16 and helical spring 18 of Fig. 6, only one end of the arms or extensions 12a and 13a need be provided with springs. The other end of the extensions may therefore be provided with a rigid support member 29a that is fixedly secured to the end of the extension 13a opposite that of the leaf spring 38.

The device of the present invention is an improvement over prior constructions because it provides an effective means for mounting flexible banners or signs horizontally for display of advertising matter on a single upright pole or standard rather than between a pair of spaced standards. The banner tender is of knockdown construction to permit economy of shipping and is adjustable for use with banner components of varying lengths, which components are of relatively short life compared with that of the members constituting the banner tender itself. The banner tender is of boxlike construction with the banner components attached and it comprises a pair of bowed or arcuate arms, each having a separate tensioning means at opposite ends for retaining the flexible banners in taut planes spaced from all contact with the arms except at the opposite ends where they are attached.

The separate tensioning springs adjust themselves to any unevenness of spacing between opposite ends of the banners and thereby retain each banner in a flat unwavy plane that is conducive to easy reading by an approaching motorist. Such construction also yields to unusually strong gusts of wind and automatically returns the banner components to their original taut positions without permitting the banners to be permanently deformed due to such wind action. Moreover, the separate tensioning springs compensate for any elongation or contraction of

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the fabric of the components due to changing weather conditions and thereby prevent them from sagging or otherwise being permanently deformed from the taut position.

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 claim.

I claim:

In a horizontal banner tender of the type mountable on one upright standard wherein a pair of elongated horizontal arms are mounted on diametrically opposite sides of the standard and wherein a pair of spaced banner com-

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ponents are mounted on opposite sides of the standard on the horizontal arms, the improvement in which the horizontal arms are composed of telescopic tubular members, reinforcing means for the arms extending between the outer end portions thereof, each arm having an end portion slidably mounted on an intermediate portion of the arm, a spring mounted within each end portion for holding its extremity remote from a standard, a pair of vertical supports on each arm, each support being fixedly mounted at the extremity on each end portion, each vertical support being secured in place in a non-rotatable manner, and means for rigidly mounting each banner on and between each pair of vertical supports.

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