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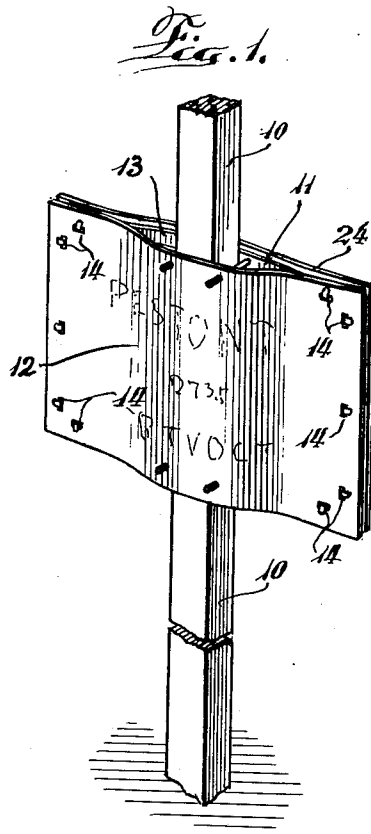
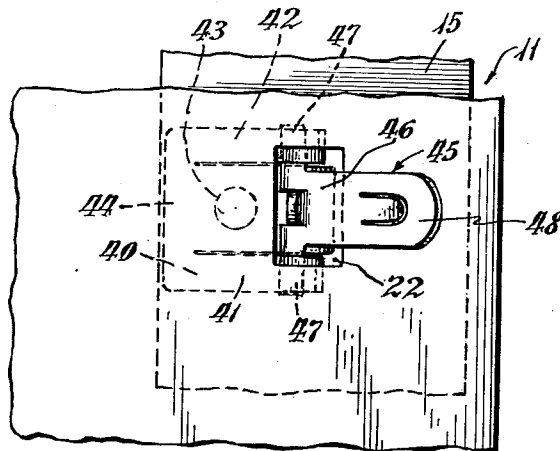
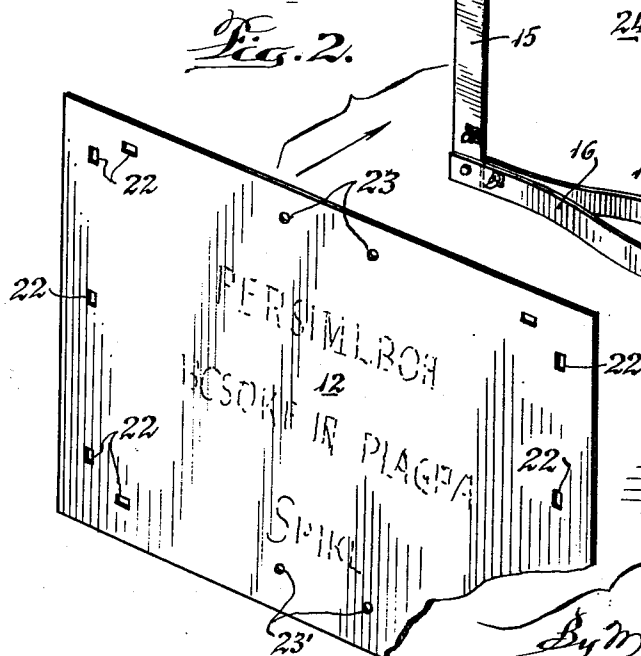
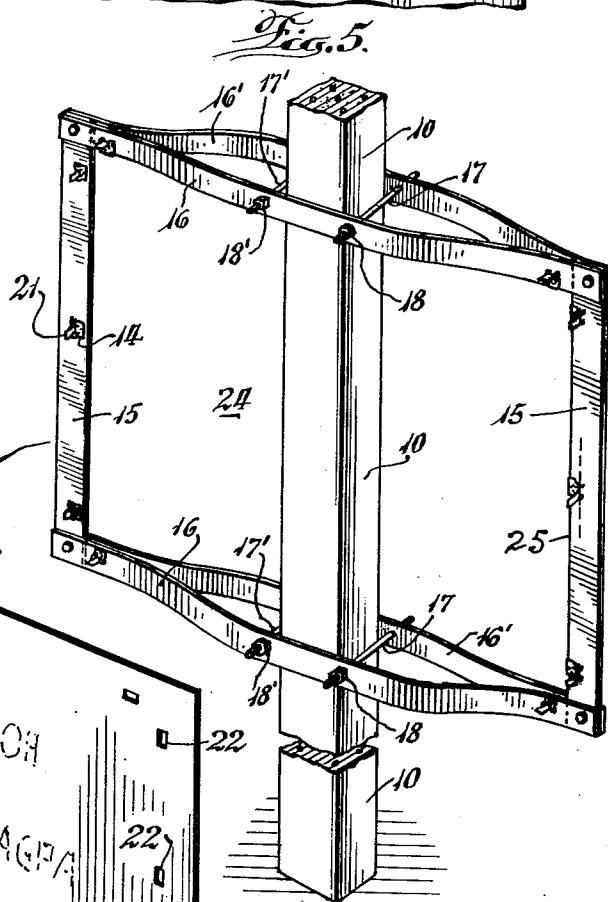
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3,138,886

ADVERTISING SIGN CONSTRUCTION

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2 Sheets-Sheet 1



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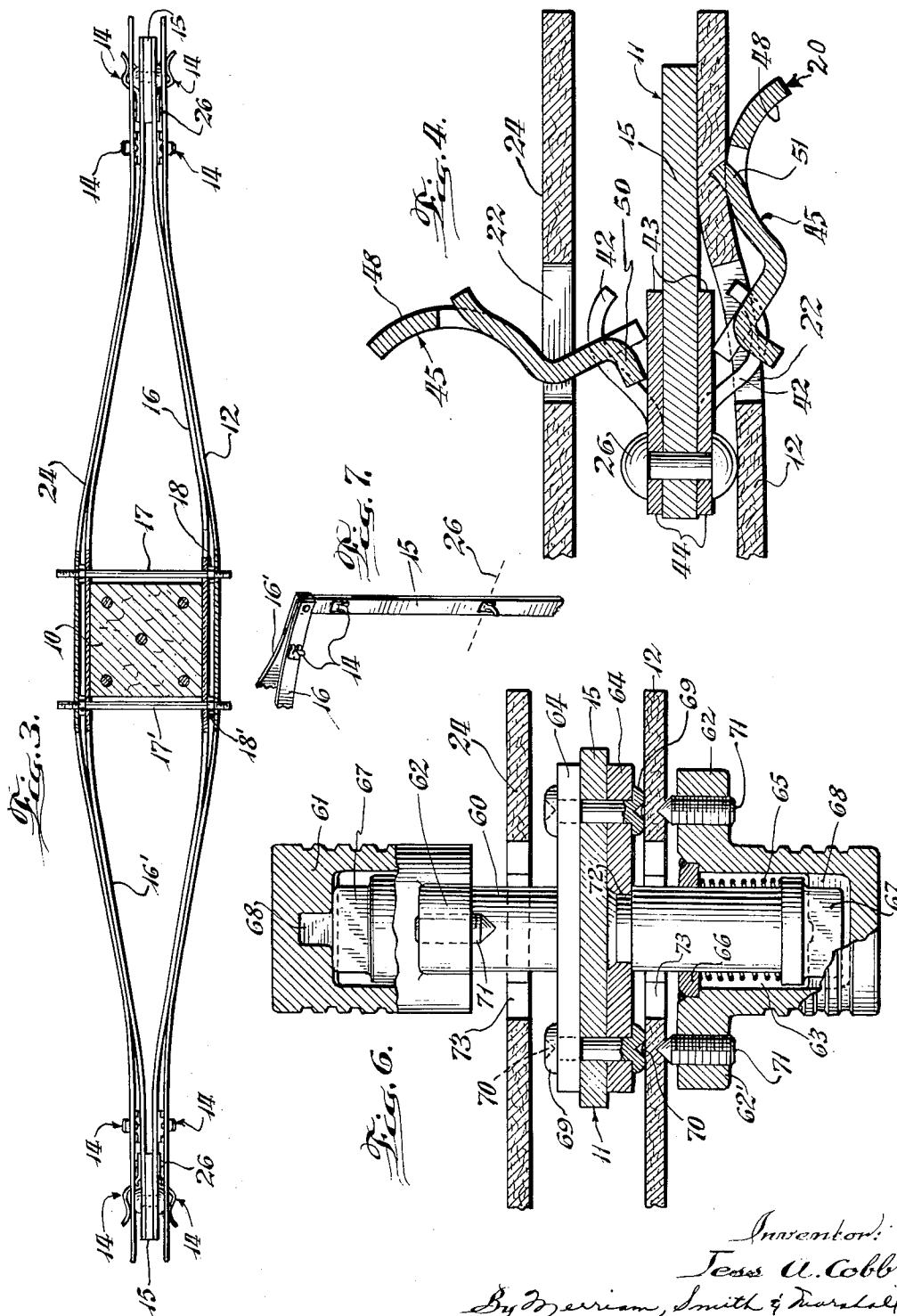
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2 Sheets-Sheet 2



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ADVERTISING SIGN CONSTRUCTION

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This invention relates to an advertising display sign. It more specifically is concerned with a mount for supporting removable sign placards and the like which facilitates the installation or removal of the sign placard.

Advertising display signs intended for outdoor use generally employ a sign-holding assembly for removably attaching to a mounting means a panel having imprinted thereon advertising material. The sign-holding assembly is usually attached to an elevated standard. In the design of such sign holders, it is desirable to facilitate the installation and/or removal of the advertising panel in order to provide flexibility for variations in advertising campaigns. With such installations a planned campaign involving a series of advertising placards designed for sequential mounting on the same support means can be used and distributed to the advertising display site for installation.

Because of the labor involved in the installation or replacement of advertising display signs, sign-holding assemblies and other support means of various types have been used. The methods for affixing the advertising display placard to the sign-holding assembly, however, has been unsatisfactory because they generally involve the use of threaded fasteners or other similar removable fastening means which require a sometimes difficult manual manipulation to effect the securing of the fastener to a suitable sign-holding support assembly. The installation and replacement of advertising placards on the mounting bracket is generally done by inexperienced help, or under adverse conditions of weather and the like. Accordingly, the need for a simple mounting arrangement has been recognized which eliminates the problem of separate fasteners removable from the sign-holding assembly, permits the installation to be made with inexperienced help by a single installer and yet permits the rapid installation and removal of the display placard on the sign-holding assembly.

In accordance with this invention, there is provided a sign-holding assembly which employs a mounting means for removably holding an advertising display placard or the like thereon. The mounting means comprises a plurality of spring-loaded toggle clamps which are positioned on the assembly and which are adjustable from a vertical position with respect to the face of the assembly to a position in which the toggle clamps are biased against the base member of the support means. The former position permits a removable display placard to be easily installed on said toggles and the latter position permits the placard to be clamped firmly against the support means without the use of removable fasteners.

In the drawings:

FIGURE 1 is a perspective view showing the installation of an illustrative embodiment of this invention mounted on an upright standard.

FIGURE 2 is an enlarged view of FIGURE 1 showing in exploded form the details of the sign-holding assembly with the advertising display placard aligned for positioning on the sign-holding assembly.

FIGURE 3 is a cross-sectional plan view of FIGURE 2 showing a pair of placards mounted back to back on the illustrative sign-holding assembly.

FIGURE 4 is an enlarged view of one type of spring-loaded toggle which is employed as a clamping member

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for holding the advertising display placard in place on the sign-holding assembly.

FIGURE 5 is a plan view of the toggle assembly of FIGURE 4 showing the clamping member in reduced scale.

FIGURE 6 is an alternative clamping member which can also be utilized for holding the advertising display placard in place on the bracket assembly.

FIGURE 7 is a fragmentary view of another position for mounting the clamping member on the sign support.

Referring to the drawings, in the illustrative specific embodiment shown in FIGURE 1, an upright standard 10 such as a pole sign, or the like, is employed to support the advertising sign mounting assembly of this invention in an elevated position. The frame assembly 11 comprises a mount 13 to which the advertising display placard 12 is attached by means of spring-loaded toggle clamps 14. As shown in FIGURE 2, the mounting comprises a rectangular frame having side members 15 maintained in spaced vertical position by means of the upper and lower horizontal members 16 and 16' which are spread apart into a bowed configuration to straddle upright standard 10. The horizontal members 16 and 16' are held in frictional engagement on the pole 10 by means of threaded studs 17 and 17' which traverse holes provided in the horizontal members and extend beyond the face of the frame assembly 11 if desired. Threaded fasteners 18 and 18' engage the terminal ends of studs 17 and 17' and pull the bowed horizontal members into engagement with the pole 10 to hold the frame assembly 11 in place. In extending beyond the outer faces of the frame assembly 11, the studs 17 and 17' have a preliminary function which facilitates the mounting of the advertising placard 12 as will hereinafter be discussed.

Peripherally mounted on the horizontal and vertical members 15, 16 and 16' of the frame assembly 11 in spaced relationship to each other are a plurality of spring-loaded toggle clamps 14, each having a pivotally mounted toggle 21 which can be adjusted from a position normal to the face of the frame assembly on which it is mounted to a clamping position substantially parallel to the face of the frame assembly 11 in order to hold the placard 12 mounted thereon tightly against the face of the frame assembly 11. As seen from FIGURE 2, the advertising placard 12 is provided with a plurality of apertures 22 having a pattern registering with the mounting pattern of toggle clamps 14.

As hereinbefore mentioned, additional holes 23 and 23' can be provided for hanging temporarily the placard on the protruding terminal ends of the threaded studs 17 and 17' during the initial installation in order to permit the subsequent alignment of the apertures 22 in the placard 12 with the toggle clamps 14. After the apertures have been aligned with the toggles 21 which are in the vertical mounting position, the placard 12 is moved into abutment with the frame assembly such that the toggles 21 extend through the apertures 22. The spring-loaded toggle 21 is then adjusted into the clamping position. Because of the biasing action of the toggle 21, the placard 12 is held firmly against the face of the frame assembly 11 as shown in FIGURE 1.

If desired, the opposed face of the frame assembly 11 can also be provided, as shown in the drawings, with toggle clamps 14 in order that another advertising placard 24 can be positioned on the opposite face of the assembly 11. To facilitate the installation of the toggle clamps 14, they can be mounted opposite each to the other such that a single fastener 26, such as a rivet or the like, can be used to secure the pair of clamps 14 to the opposed faces of the assembly 11. As shown in FIGURE 2, the pivotal axis 25 of the toggle 21 is aligned with the longitudinal

axis of the framing members 15 and 16. If desired, the width of the framing members can be narrowed by changing the pivotal axis 26 to a position normal with the axis of the framing members as shown in FIGURE 7.

As shown in the drawings, the mounting clamp which is employed has a pivotal toggle arm member which is springloaded such that the arm can be brought into biased engagement with the placard in cooperation with the face of the frame assembly 11 to provide a means for clamping the advertising placard 12 between the arm member and the face of the mounting bracket.

In FIGURES 4 and 5 is shown a preferred clamp which can be utilized in the advertising sign assembly of this invention. In FIGURE 4, the top clamp shows the toggle in an upright position for mounting the sign while the bottom clamp is in clamping engagement with a sign 12. This clamp 20 consists of a trifurcated base member 40 having a pair of resilient outer arms 41 and 42 and an intermediate arm 43 connected by means of a web portion 44. The free terminal ends of the outer arms 41 and 42 are formed into an arcuate configuration as shown in FIGURE 4. The pivotal toggle arm 45 is of a width substantially the same as the width of the intermediate arm 43 and comprises a shank portion 46 from one end of which laterally depends a pair of opposed trunnions 47 which register with the arcuate terminal portion of outer arms 41 and 42. The trunnions 47 preferably have a width to thickness ratio of substantially greater than one in order that a biased action can be effected by the resiliency of the outer arms 41 and 42 when the arm 45 moves into a clamping position. To the other end of the shank portion 46 of clamping arm 45 is attached a curved terminal end 48 which curves downwardly below the lower face of the base member 40 when the shank portion 46 and the base member 40 are in a substantially parallel position. When the curved bottom of the terminal end 48 is moved into substantial alignment with the plane of the base member, there is exerted a biasing effect upon any surface with which it engages and which rests on the face of the frame assembly cooperating with the toggle arm.

In order to prevent the clamping arm 45 from being moved into a replicate position about 180° back from its clamping position, an outwardly extending detent 50 is used. As seen from FIGURE 4, this holds the toggle arm 45 in a vertical position and prevents the clamping arm from being urged over backwards into an unwieldy position making it more difficult to align the clamping arm in its mounting position for the subsequent mounting of an advertising placard 12. The bowed terminal end 48 of the clamping arm 45 can also be provided with a barb-like boss 51 which forms a detent impression in the face of the advertising placard in the event that a soft material is used to form the placard 12. This helps to retain the sign in position on the frame assembly 11 and resists any accidental movement of the sign 12 which might be caused by wind loads and the like.

Other variations of mounting clamps can also be employed in the sign-holding assembly of this invention such as the alternative embodiment shown in FIGURE 6. In FIGURE 6, as in FIGURE 4, the top view shows the clamping member in a sign mounting position, whereas the bottom view shows the toggle clamp in engagement with the sign and holding it in place against the frame assembly 11. The type of clamp shown in FIGURE 6 consists of a pintle 60 upon which is slidably mounted a clamp element 61 which has laterally extended from its base clamping arms 62 and 62'. The clamp element has a cavity 63 which permits the clamp element to be slideably and pivotally mounted upon pintle 60. One end of the pintle 60 is attached to a mounting flange 64 to which it is attached by riveting or other suitable fastening means 72. The other end of the pintle 60 is provided with a collar which functions as a stop for one end of the coil spring 65. The other end of the coil spring 65

engages with an annular shoulder 66 mounted in an internal recess provided at the base end of the cavity 63. On the free end of pintle 60 is mounted an upstanding arm 67 which is diametrically positioned thereon. The inner end of cavity 63 has formed therein a channel 68 conforming to the same general configuration of upstanding arm 67 such that arm 67, when 90° displaced from the axis of the channel 68 functions as a stop to hold the clamp 61 in the open position. Upon rotating the clamp 61, 90° with respect to pintle 60, the upstanding arm 67 comes into registration with the channel trough 68 and permits the clamp assembly to move down into cooperative position with the mounting flange 64 which is attached to the face of the frame assembly 11. Suitable fastening means, such as rivets 69, which have concavities 70 therein cooperating with pointed pins 71 which function as the barb-like boss 51 in the clamping assembly discussed in FIGURE 4 to hold the placard 12 in place. Instead of a slot-like aperture, the face of the placard 12 is provided with a hole 73 having a configuration substantially the same as the traverse cross-section of the cap assembly taken through that portion of the cap having the clamping arm 62 extending therefrom. This permits the placard to be placed over the clamping assembly and clamped in position by the rotation of the cap element which is biased into a clamping position by means of the coil spring 65.

Although this invention has been described with reference to several illustrative embodiments, it is evident that variations and modifications can be made by those skilled in the art to which it pertains without departing from the scope of the invention. Although it is preferred that the sign placard be made of a stiff material such as cardboard, sheet metal, plastic or the like, cloth signs can also be used. Generally, the apertures which engage the mounting clamp do not require reinforcing around their edges. It may be necessary in certain instances to provide such reinforcement by grommeting or the like, especially where cloth or thin plastic sheeting is used for constructing the placard. In addition, the means for attaching the frame assembly to a pole sign is intended as only illustrative. The principles of this invention can be utilized for a variety of advertising display installations which permit and which use different types of sign hanging brackets for the installation of the sign-holding assembly of this invention on a suitable standard which may consist of a single pole as illustrated or other standards available for the hanging of the assembly at a suitable place. Although a rectangular frame assembly is shown, other geometric outlines can be used and, if desired, a solid support can be employed instead of the open framework. Conventional materials of construction can be utilized for manufacturing the various components of this invention. However, where a toggle clamp such as shown in FIGURE 4 is employed, the base member 40 is prepared from a metal having a sufficient resiliency in order to give the outer arms the action necessary for the biasing effect produced by them on the clamping arm. Accordingly, it is intended that the instant invention be limited only in the manner set forth in the appended claims.

What is claimed is:

1. In an advertising sign construction for removably attaching a placard sign having disposed in the face thereof a plurality of mounting apertures, a display sign-holding assembly which comprises a sign support means having a rectangular frame fabricated from at least one thin, narrow bar having a planar face upon which the sign rests, a plurality of toggle clamps mounted on said planar face in spaced relation each to the other in a pattern conforming with the pattern of said mounting aperture, said toggle clamps comprising a pair of spaced resilient arms attached to said planar face, a toggle arm having a pair of trunnions laterally depending from said arm engaging said resilient arms, said trunnions having a width to thickness ratio of greater than one whereby said arm can be held in sign-installing position normal to said face, and

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be pivoted into a biased clamping position substantially parallel to and in cooperation with said planar area.

2. In an advertising sign in accordance with claim 1 in which the free end of said toggle arm has an arcuate configuration.

3. In an advertising sign in accordance with claim 2 in which said arcuate free end has a boss-like protuberance for engaging said placard sign.

4. In an advertising sign in accordance with claim 1 in which the end of said toggle arm adjacent said trunnions has extending substantially normal from said arm a finger to limit the replicate positioning of said arm.

5. In an advertising sign construction for removably attaching a placard sign having disposed in the face thereof a plurality of mounting apertures, a display sign-holding assembly which comprises a sign support means comprising a rectangular frame comprising top and bottom flat-faced bar members held in spaced relation by a pair of flat-faced side bar members, means for attaching said frame to an upright standard, a plurality of toggle clamps mounted on said planar face in spaced relation each to the other in a pattern conforming with the pattern of said mounting apertures, a base member mounted on the face of said bar members, a pair of spaced resilient arms and an intermediate arm, each of said spaced arms having a curved free end, a toggle arm having flat trunnions laterally extending from one end thereof and engaging said curved ends of said spaced arms, said toggle arm having a shank portion overlying said intermediate arm and an arcuate free end, said arm being adapted to be

held in sign-installing position normal to said face, and be pivoted into a biased clamping position substantially parallel to and in cooperation with said planar area, and means depending from the end of said toggle arm adjacent said trunnions for preventing the replicate positioning of said arm, and means on said arcuate end of said toggle arm for extending beyond the face thereof for frictionally engaging a sign mounted in said sign-holding assembly.

6. In an advertising sign in accordance with claim 5 in which the axis of said trunnions is normal to the longitudinal axis of the bar members to which the toggle clamps are attached.

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