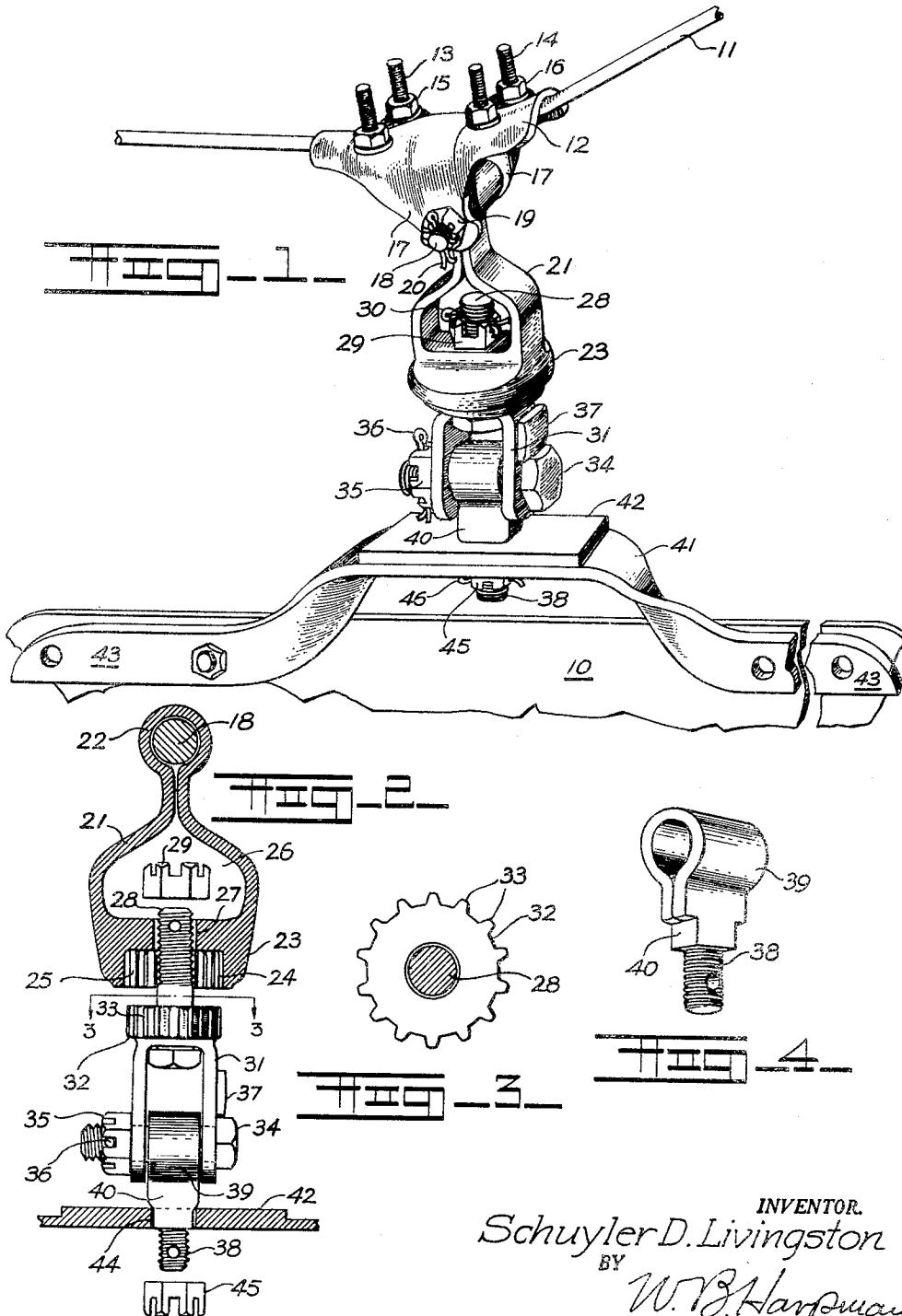


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S. D. LIVINGSTON
SIGN SUPPORTING BRACKET

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SIGN SUPPORTING BRACKET

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This invention relates to a sign supporting bracket and more particularly to an improved device which may be positioned on an overhead wire or cable and used to suspend a sign therebeneath.

The principal object of the invention is the provision of a sign supporting bracket adapted to position a sign above a roadway on an overhead supporting cable regardless of the angle or inclination of the cable with respect to the roadway.

A further object of the invention is the provision of a sign supporting bracket that includes a construction permitting the sign to swing in any direction without stressing any of the parts of the bracket.

A still further object of the invention is the provision of an adjustable sign supporting bracket of simple construction capable of being readily adjusted so as to locate a sign supported thereby crosswise of a street or roadway.

A still further object of the invention is the provision of a sign supporting bracket that will support a sign under any and all conditions and be completely free of mechanical failure.

The sign supporting bracket disclosed herein is used for positioning overhead signs above traffic lanes in a roadway. Such signs are commonly used to indicate intersections, turnoffs, and various lanes in the roadway and are frequently positioned over the roadway in locations where it is impossible to position a supporting cable transversely of the roadway at a right angle thereto. Such sign supporting brackets as have been heretofore used have generally required that the supporting cable be positioned at a right angle to the roadway which often necessitated the positioning of the sign in a compromise location due to the inability to install a supporting cable at the most desirable sign location.

The present invention comprises a supporting bracket for an overhead sign which will attach to a cable positioned at any angle and any inclination with respect to the roadway and thereby permit the sign to be located in the most desirable location. Supporting brackets heretofore known in the art have frequently failed due to the inability of the constructions used to permit relatively free motion of the sign as occasioned by wind and the present invention relates to a construction which in addition to being universally adjustable provides positive free swinging action on suitable bearings insuring the long and satisfactory life of the sign supporting bracket.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being the intention to cover all changes and modifications of the example of the invention herein chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a perspective view of the sign supporting

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bracket showing a portion of a supporting cable and a portion of a sign.

Figure 2 is an exploded view with parts in cross section and parts broken away.

Figure 3 is a cross section on line 3—3 of Figure 2.

Figure 4 is a perspective view of a portion of the bracket shown in Figures 1 and 2.

By referring to the drawings and Figure 1 in particular it will be seen that a sign 10 is supported on an overhead cable 11 by a sign supporting bracket comprising a suspension clamp 12 positioned over the cable 11 and having a pair of U bolts 13 and 14 positioned upwardly there-through so as to clamp the suspension clamp 12 to the cable 11 through the use of nuts 15 and 16 engaging threaded end portions of the U bolts 13 and 14. The downwardly projecting portions of the suspension clamp 12 form depending arms 17 which are apertured in oppositely disposed horizontally aligned relation to receive a bearing bolt 18 which is threaded on one end to receive a nut 19 and apertured transversely to receive a cotter key 20. A body member 21 having a transverse opening 22 in its uppermost portion is suspended thereby on the bearing bolt 18 as best seen in Figure 2 of the drawings. The lowermost portion 23 of the body member 21 is circular and defines a recessed annular cavity 24 the walls of which are provided with vertical ribs 25. The middle portion of the body member 21 defines an open area 26 and a passageway 27 extends vertically through the circular portion 23 and receives a threaded bolt 28 which in turn is provided with a nut 29. A secondary cotter key 30 is positioned through an aperture in the bolt 28 to retain the nut 29 thereon. The bolt 29 is positioned vertically through an apertured bifurcated member 31 which has a circular upstanding extension 32 provided with circumferentially spaced ribs 33. It will be seen that the ribbed circular extension 32 is of a size and shape to register within the ribbed annular recess 24 of the body member 21 heretofore described, in a manner so that it cannot rotate therein.

The depending arms of the bifurcated member 31 are apertured and receive a secondary bearing bolt 34 which is provided with a nut 35. An aperture in the bolt 34 receives a cotter key 36 to secure the nut 35 on the bolt 34. A sideward projection 37 on one arm of the bifurcated member 31 provides an abutment for the one side of the head of the bolt 34.

A bolt 38 having transversely apertured head 39 is journaled thereby on the secondary bearing bolt 34 and depends therebeneath and includes an intermediate squared shoulder 40. A sign supporting arm 41 having a thickened central offset section 42 and oppositely disposed outwardly extending apertured end portions 43 is provided with a squared opening 44 in the central offset section 42 thereof and is engaged upon the squared shoulder 40 of the bolt 38. A nut 45 is positioned on the bolt 38 to hold the sign supporting arm 41 thereon and a cotter key 46 is positioned through an aperture in the bolt 38 to secure the nut 45. It will thus be seen that the bolt 38 which carries the sign supporting arm 43 is free to swing in a direction at right angles with respect to the sign supporting arm 43 and at the same time the body member 21, the bifurcated member 31 and the bolt 38 and sign supporting arm 43 are free to swing in a direction longitudinally of the sign supporting arm 43 on the bearing bolt 18.

At such time as the body member 21 is positioned in relatively different relation to the bifurcated member 31 the same right angle swinging motion is possible between the sign carrying arm and the bifurcated member 31 and those skilled in the art will recognize that the majority of swinging motion encountered with an overhead sign comprises motion occasioned when the sign is broadside

to the wind direction or substantially thereto. Sign supporting brackets as heretofore known in the art have generally failed to provide dual swinging pivots with an adjustment therebetween as disclosed herein and which construction is essential if the sign is to remain in position on a supporting cable for any length of time. Those skilled in the art will recognize that the sign supporting brackets heretofore known in the art have invariably applied twisting action to the supporting cable responsive to the tendency of the sign to swing in the wind and have frequently frayed the supporting cable to the point of breakage. In the present construction the parts of the bracket engaging the supporting cable remain stationary due to the freedom of action provided by the two bearing bolts 18 and 38 and the pivoting of the parts of the supporting bracket thereon. The sign supporting bracket disclosed herein may be assembled with the exception of the bearing bolt 18 and secured to the sign with the suspension clamp 12 assembled and secured to one another by the application of the bearing bolt 18 and the nut 19 and cotter key 20. The construction therefore permits the majority of the assembly operation to be carried out on the ground and the final assembly steps completed quickly and easily in the final overhead position of the sign.

The suspension clamp 28 may and preferably does incorporate a longitudinally extending shoe positioned between the lower surface of the cable 11 and the upper inner surfaces of the U bolts 13 and 14 whereas the clamping action of the U bolts is exerted on the cable 11 through the shoe as will be understood by those skilled in the art.

It will thus be seen that the sign supporting bracket disclosed herein provides a convenient and satisfactory device for positioning a sign above a roadway and thereby meets the several objects of the invention and having thus described my invention what I claim is:

1. A sign supporting bracket comprising in combination a suspension clamp adapted to be positioned over a support cable and secured thereto and a body member pivotally secured to said suspension clamp and depending therefrom, said body member having a circular ribbed recess formed in its lower surface and transverse and vertical openings therethrough, a bifurcated member having oppositely disposed apertures in the arms thereof and an aperture in the intermediate portion thereof and a bolt positioned through said aperture in said immediate position of said bifurcated member and through said vertical aperture in said body member and an upstanding ribbed circular extension on said bifurcated member adapted to be positioned in said ribbed circular recess in said body member, a bolt having a transverse passageway in the head thereof and a pivot pin positioned through

said oppositely disposed apertures in said bifurcated member and through said transverse passageway in said last mentioned bolt and a sign supporting arm having central aperture therein positioned on said bolt and a nut threadably engaged on said bolt for securing said sign supporting arm thereto.

2. The sign supporting bracket set forth in claim 1 and wherein said body member has a transverse opening in its uppermost end and wherein said uppermost end of said body member is positioned in said suspension clamp and a bearing bolt is positioned through said clamp and said transverse opening in said body member.

3. The sign supporting bracket set forth in claim 1 and wherein said bolt having a transverse opening in the head thereof has a square shoulder adjacent said head and wherein said squared shoulder is positioned in a squared opening in said sign supporting arm.

4. A sign supporting bracket comprising an elongated sign support arm having an upwardly offset central section, said sign supporting arm having horizontally disposed openings in the ends thereof and a vertically disposed opening in said offset central portion thereof, a bolt having a transverse opening in its head secured in said vertical opening in said sign supporting arm, an apertured bifurcated member having an annular upstanding ribbed extension thereon and a pivot member positioned through said bifurcated member and through said transverse opening in the head of said first-mentioned bolt whereby said bifurcated member is pivotally mounted with respect to said sign supporting arm, a body member having a ribbed annular recess in the bottom thereof engaged on said upstanding ribbed extension of said bifurcated member, a vertically disposed fastener positioned through said bifurcated member and said body member and detachably securing the same to one another, a transverse opening in the upper end of said body member and a suspension clamp having apertured oppositely disposed depending side portions and a pivot pin positioned through said apertures in said depending side portions of said suspension clamp and engaged in said transverse opening in said body member and clamp means on said suspension clamp for securing said clamp to an overhead cable.

5. The sign supporting bracket set forth in claim 4 and wherein said bolt having a transverse opening in its head has a squared shoulder therebeneath and wherein the vertically disposed opening in said support arm is square.

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