June 22, 1937. W. M. LITTLEFIELD 2,084,816

HIGHWAY SIGN AND MARKER BRACKET

Filed Jan. 29, 1936 2 Sheets-Sheet 1

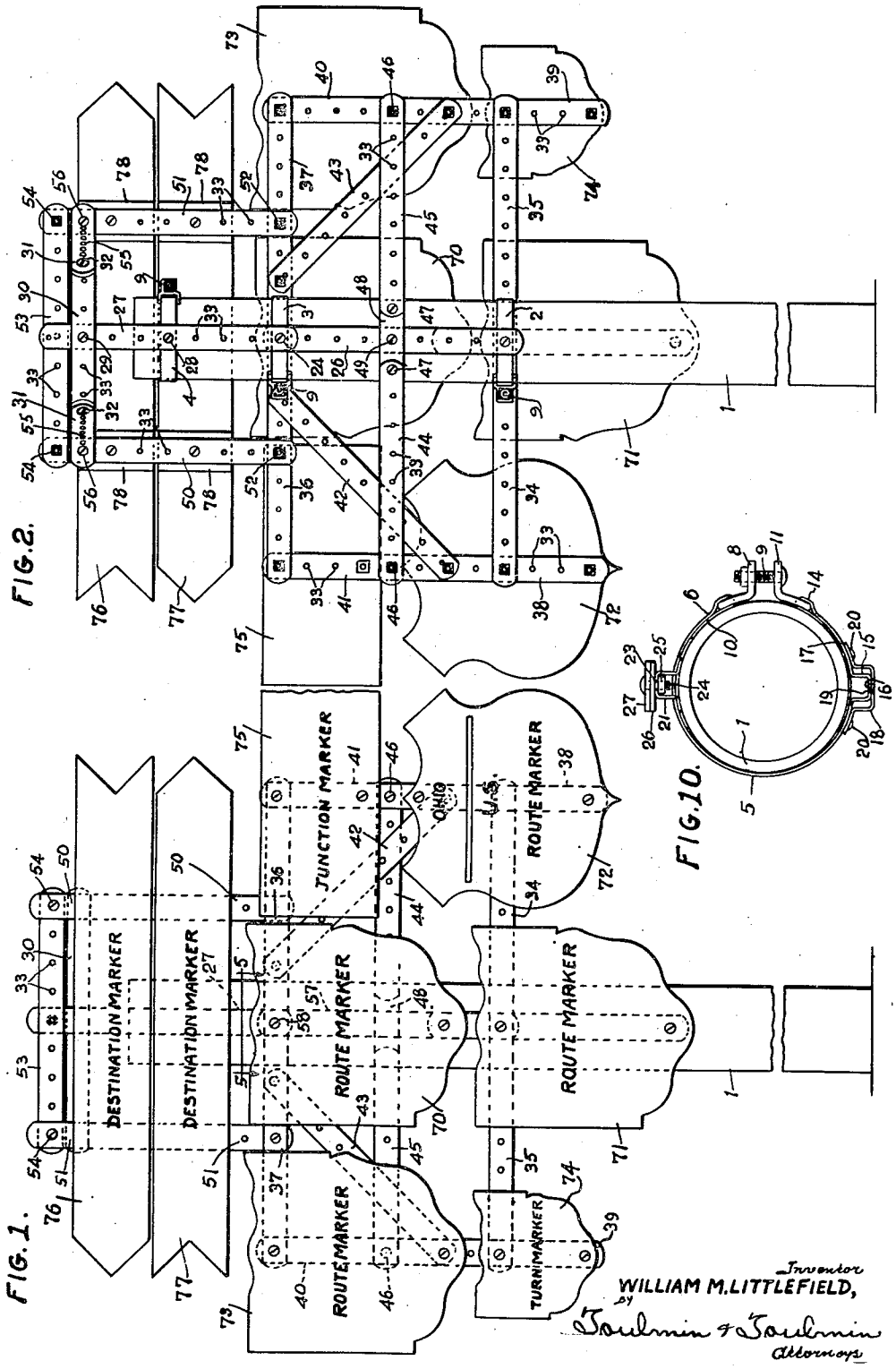


FIG. 1.

FIG. 2.

FIG. 10.

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FIG. 3.

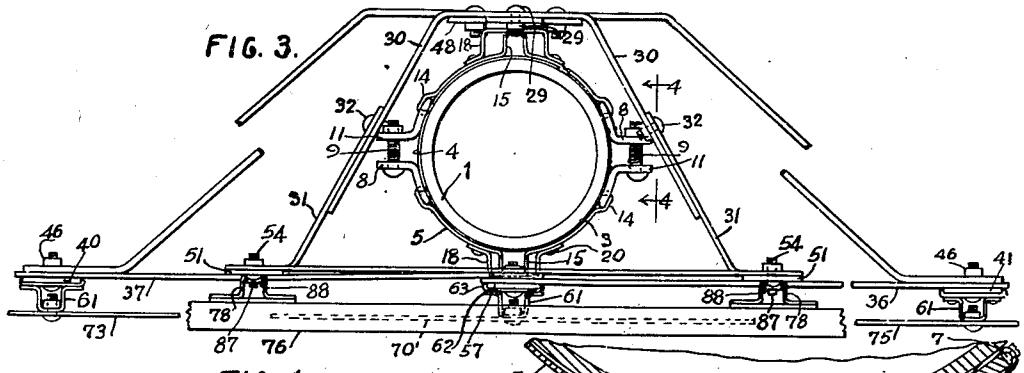


FIG. 4.

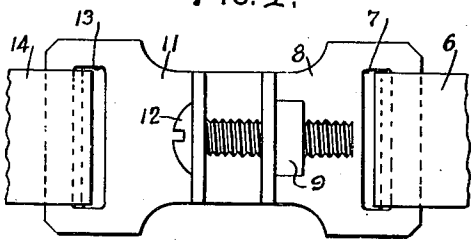


FIG. 5.

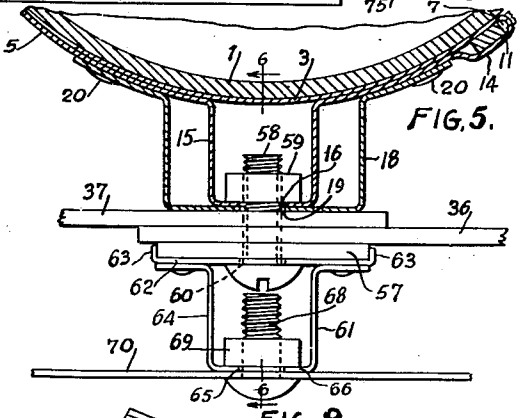


FIG. 6.

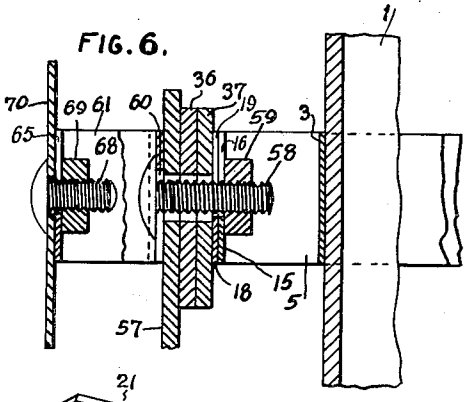


FIG. 9.

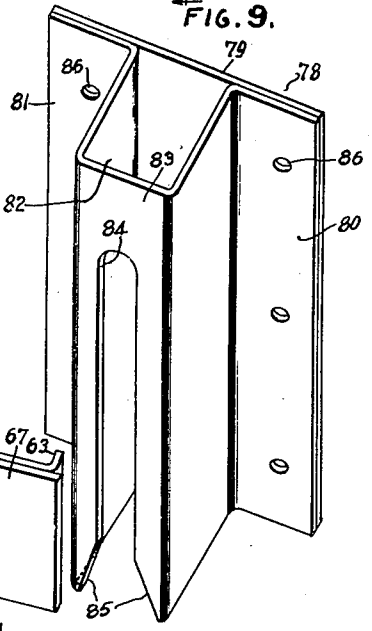


FIG. 7.

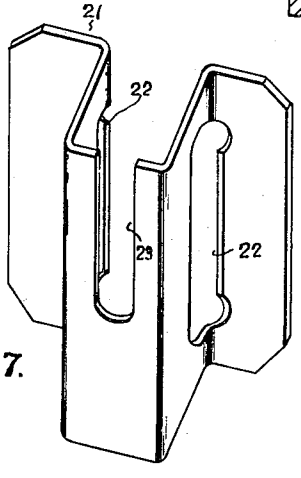
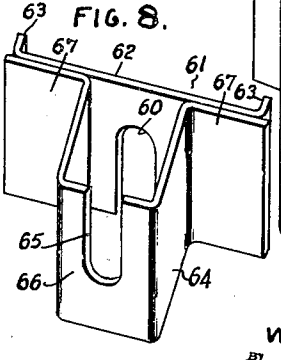


FIG. 8.



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2,084,816

HIGHWAY SIGN AND MARKER BRACKET

William M. Littlefield, Sidney, Ohio, assignor to The Sidney Elevator Company, Sidney, Ohio, a corporation of Ohio

Application January 29, 1936, Serial No. 61,265

9 Claims. (Cl. 40—145)

This invention relates to sign supports, and in particular, to brackets for supporting highway signs and markers.

One object of this invention is to provide a highway sign bracket consisting of a plurality of standardized parts which may be assembled in a plurality of ways to devise a framework adapted to differing sets of conditions.

Another object is to provide a highway sign bracket or framework composed primarily of a plurality of strips of metal of the same length, assembled and united to one another and to a post attachment clip in such a manner as to provide a framework which can be enlarged or reduced to suit it to changing conditions, such as a change of route or terminology, or an addition of a new road or a detour.

Another object is to provide such a bracket or framework which may be instantly dismantled and the parts used for a framework or bracket of different shape.

Another object is to provide a highway sign and marker bracket or framework of this type, wherein the parts may be assembled at the point where the sign is to be installed, and without any previous planning or preparation, the standardized parts being of such a character that the sign framework may be constructed on the spot.

Another object is to provide an attachment clip by means of which signs may be quickly attachable and detachable from the framework without the necessity of dismantling the framework, and enabling the latter to be painted and the signs reinstalled without the necessity of waiting for the paint to dry.

In the drawings:

Figure 1 is a front elevation of the highway sign and marker bracket of this invention.

Figure 2 is a rear elevation thereof.

Figure 3 is a top plan view of the bracket or framework shown in Figures 1 and 2.

Figure 4 is a side elevation looking in the direction 4—4 of Figure 3, and showing certain details of the post attachment clamp.

Figure 5 is an enlarged detail cross section through the post attachment clamp and an assembly of frame strips and marker holders, taken along the line 5—5 of Figure 1.

Figure 6 is a cross section along the line 6—6 of Figure 5.

Figure 7 is a perspective view of a brace holder used in connection with the sign bracket of this invention.

Figure 8 is a perspective view of a marker holder.

Figure 9 is a perspective view of a destination sign holder.

Figure 10 is a plan view of a post attachment clamp employed in attaching the framework to a post.

In general, the highway sign and marker bracket of this invention consists of a framework formed of pieces of metal of standardized length, which are attached to clips encircling the sign post. The signs or markers are secured to this framework by means of clip-like holders whereby they may be quickly attached or detached. Where the frame strip of standardized length is used for a brace the necessarily greater length required is obtained by the use of a supplemental strip, which serves to fill out the length thereof.

Hitherto, highway sign brackets and frameworks have been constructed individually for each particular location. The foreman in charge of locating the sign visited the prospective location and determined the nature of the framework necessary. These directions he gave to the blacksmith, who would construct a framework accordingly. The foreman then returned to the prospective location of the sign and had the framework installed. If the framework did not fit the post or was not adapted to the particular conditions, it had to be removed to the shop and altered in a suitable way until it completely fitted the requirements. Whenever a framework was damaged or whenever the route was added to or altered, it was necessary to construct a new framework to meet the altered conditions. It was to overcome defects of this nature that the sign and marker bracket of this invention was devised so that no previous planning is necessary, the bracket being constructed at the point where it is to be used.

Referring to the drawings in detail, Figures 1 and 2 show the highway sign and marker of my invention as attached to a post 1, either of solid or hollow construction. Encircling the post 1, at separated points, are the post attachment clamps 2, 3 and 4. These attachment clamps are of substantially the same construction, hence, a single description suffices for all.

The post attachment clamp generally designated 3 consists essentially (Figures 3 and 10) of a band of metal 5, which encircles the post and has a loop 6 at one end, this loop passing through a slot 7 in an angled member 8 having a bolt hole 9 therethrough. After passing through the slot 7 the remainder of the loop doubles back on the inner side of the metal band 5, as at 10. Facing the angled member 8 is a similarly angled

member 11, having a similar bolt hole 12 therethrough and a similar slot 13 for the passage of the loop 14 on the opposite end of the metal band 5. At an intermediate point between these ends the band 5 is bent in an outwardly projecting portion 15, having a U-shaped slot 16 in one edge thereof. Beyond this point the band 5 continues through the slot 13 and back along its inner surface in a portion 17. Cooperating with the portion 15 is a short additional band of metal 18, which also projects in a manner similar to the portion 15 (Figures 5 and 10), and which similarly is provided with a slot 19 aligned with the slot 16. The metal band 5, the rear portion 17 thereof and the short metal loop or band 18 are united to one another by the rivets 20.

The metal band 5 is provided with a sliding clip or brace holder 21 (Figures 7 and 10). This consists of a U-shaped band of metal having slots 22 near the top of the U, and a slot 23 extending inwardly from the edge in the bottom portion of the U. The metal band 5 which encircles the post passes through the slots 22 and holds the ends of the brace holder 21 firmly in contact with the sides of the post. The slot 23 serves to receive a bolt 24 (Figure 10), the nut 25 of which rests in the inner portion of the U-shaped brace holder or clip 21. This portion is of approximately the same width as the nut 25, hence, prevents the nut from turning when the bolt 24 is tightened or otherwise adjusted. The bolt 24 serves to hold together the abutting ends of the vertical braces 26 and 27, and securely clamps these in engagement with the brace holder 21 and hence anchors them against the post 1.

The vertical brace 26 extends upwardly, and at its mid-portion is provided with a bolt 28 by which it is secured to the post attachment clamp 4, in a manner similar to that described in connection with the bolt 24 and the post attachment clamp 3. Continuing upwardly the top of the brace 27 is provided with a bolt 29, holding the horizontal brace 30 in contact with the vertical brace 27 (Figures 2 and 3). The horizontal brace 30 is U-shaped and consists of one of the standard strips hereinafter referred to, this strip being bent in the form of a truncated V. These frame strips, from which the various braces such as 26, 27 and 30 are made, are of insufficient length for their use as diagonal or bent braces. The length thereof is accordingly supplemented by the supplemental strips 31, attached at each end of the braces 30 by the bolts 32. The supplemental strips are provided with narrowly spaced bolt holes 55, whereby the supplemental strips 31 may be exactly adjusted in length to fit the particular conditions.

The framework to which the various signs or markers are attached is formed chiefly of straight frame strips, of which the vertical braces 26 and 27 are typical. These frame strips are composed of iron bars having holes 33 at intervals along the length thereof. By means of these holes the bolts may be inserted at any desired point and other braces attached thereto. In the form shown in Figures 1 and 2 the vertical braces 26 and 27 extend upwardly along the back of the post 1. The framework for holding the signs and markers consists of the horizontal brace members 34, 35, 36 and 37, which, with the vertical outer braces 38, 39, 40 and 41, form a rectangular structure. The diagonal braces 42 and 43 serve to interconnect the vertical and horizontal braces (Figure 2) and strengthen the framework formed thereby.

This framework is further strengthened by the rearwardly extending braces 44 and 45. These are secured at their outer ends to the vertical braces 41 and 40, respectively, as by the bolts 46. At their inner ends these rearwardly extending braces 44 and 45 are attached by the bolts 47 to the supplemental brace 48. The latter is attached to the vertical brace 26 by means of the bolt 49. To the upper horizontal braces or frame members 36 and 37 are attached the vertical braces 50 and 51, as by the bolts 52. The top portions of the vertical braces 50 and 51 are connected to the upper horizontal brace 53 by the bolts 54 (Figure 2).

The outer ends of the supplemental strips 31 are attached to the vertical braces 50 and 51, respectively, by the bolts 56. In this manner the vertical subframe formed by the vertical braces 50 and 51 and the upper horizontal brace 53 is strengthened by its attachment to the rear vertical brace 27. The horizontal braces 34 and 35, as well as the horizontal braces 36 and 37 are attached to one another in the manner shown in detail in Figures 5 and 6. The inner ends of the horizontal braces 36 and 37 are overlapped with the upper end of the front vertical brace 57 (Figures 1 and 5), and through all of these passes the bolt 58 having the nut 59 resting within the forwardly extending portion 15 of the post attachment clamp 3. The bolt 58 is inserted by passing it downward through the slots 16 and 19, and the nut 59 is prevented from turning by its engagement with the side walls of the projecting portion 15.

The bolt 58 also passes through the slot 60 in the marker holder or clip, generally designated 61. The latter is shown in perspective in Figure 8 and consists of a base portion 62 having bent ends 63. Secured to the base portion 62 is a forwardly projecting U-shaped portion 64, having a slot 65 in the forward end 66 thereof. The rearward wings 67 of this portion are secured to the base portion 62 by any appropriate means, such as by spot welding, brazing, soldering or riveting. Through the slot 65 passes the bolt 68, having a nut 69 serving to hold the marker 70 (Figure 5) in engagement with the clip 61. The bent ends 63 engage the sides of the vertical brace 57 in such a manner as to prevent the twisting of the marker holder or clip 61. At the same time the forwardly extending portion 64 serves to space the marker 70 apart from the intersecting braces 36, 37 and 57. One object of this construction is that by loosening the bolt 68 the marker 70 may be instantly removed and replaced with another marker; or else the various braces may be painted and the marker 70 replaced without waiting for the braces to dry. The marker 70, as shown in Figure 1, is of the outline common to such markers, namely, that of the State or the shield of the United States, and carries the number denoting the route.

The route markers 71, 72 and 73 are similar to the route marker 70 and are similarly attached by the clips or marker holders 61 to the braces or framework. The turn marker 74, however, is of smaller size and carries the letter "R" or "L", denoting whether the turn is to the right or to the left. The junction marker 75 is likewise attached to the framework by means of the clips 61, and carries the word "Junction", denoting the route which joins the main route at this point.

The top framework formed by the vertical braces 50 and 51 and the horizontal brace 53

carries the destination marker 76 and 77. These destination markers are usually in the form of arrows, and carry the name of the town, together with the distance at which the town is located from the location of the sign. These destination markers 76 and 77 are made of wood covered with a metal face, which bears the name of the town. As the back of the destination marker 76 or 77 is of wood, these markers are attached to their braces 50 or 51 by means of the destination marker clips 78, consisting of a flat base plate 79 to which is secured the lateral wings 80 and 81 of a forwardly projecting portion 82 having the front portion 83. The latter is provided with a slot 84 having the inclined portions 85 at the entrance thereof. The wing portions 80 are secured to the base plate 79 in any suitable manner, such as by spot welding, riveting or soldering, and are provided with screw holes 86 for the reception of the wood screws by which the destination markers are attached to their holders or clips 78.

In assembling the destination markers these are merely placed over the nuts 88 of their bolts 87 (Figure 3) and slid downwardly on top of one another until they come to rest in close proximity to one another. The bolts 87 are then tightened and the destination markers 76 and 77 thereby securely clamped in position. If it is desired to increase the carrying capacity of the framework thus formed, additional braces can be immediately attached to the existing framework by removing the particular bolts adjacent the point at which it is desirable to attach the additional framework. The latter can be made up of the same unit frame strips and braces in a similar manner.

In the event that the sign is used at an intersection, where it is desired to employ a single sign for designating both directions, the horizontal braces 35 and 37 may be bent at right angles to one another at an intermediate point so that they extend in a direction perpendicular to the main portion of the framework. Under these circumstances the markers attached to the outer ends of the bent portions will indicate a direction at right angles to the main framework, and appropriate markers may be secured thereto in the manner already described. Other angles may be obtained by bending the horizontal braces 37 and 35 in an appropriate manner.

In case a sign becomes damaged, as by collision, or parts thereof are stolen, a new marker can instantly be attached by the use of the marker holders 61 without any special workmanship required. The framework may also be repaired by removing the old braces and inserting new ones. In this way no time is lost by the repeated trips necessary between the location of the sign and the shop, where such frames were hitherto made.

In contrast, by the provision of six standard units, together with the bolts therefor, any framework of any desired outline can be constructed. These six standard units are the frame strips or braces, such as 26; the short supplemental strips, such as 31; the post attachment clamps, such as 3; the brace holder or clip, such as 21; the marker holder, such as 61; and the destination marker holder, such as 78. In case routes are changed or additional roads are caused to join the main road at the location of the sign, other units can be added or the outline of the framework varied instantly, without requiring any assistance from the home shop, or any return trips thereto.

I desire to comprehend within my invention such modifications as may be embraced within my claims and the scope of my invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A highway sign bracket comprising a plurality of members secured end to end to form a substantially rectilinear frame, said members being of substantially the same length and interchangeable with one another, a clamp secured to said framework and having a portion arranged to encircle a post, braces secured at one end to said framework, and supplemental members interconnecting said braces with said clamp.

2. A highway sign bracket comprising a plurality of members secured end to end to form a substantially rectilinear frame, said members being of substantially the same length and interchangeable with one another, a clamp secured to said framework and having a portion arranged to encircle a post, braces secured at one end to said framework, and supplemental members interconnecting said braces with said clamp, said supplemental members having a plurality of spaced holes therein.

3. A highway sign bracket comprising a plurality of members secured end to end to form a substantially rectilinear frame, said members being of substantially the same length and interchangeable with one another, each of said frame members having a plurality of holes spaced at intervals therealong, a clamp secured to said framework and arranged to encircle a post, braces secured at one end to said framework, and supplemental members interconnecting said braces with said clamp, said supplemental members having a plurality of spaced holes therein at shorter intervals than the holes in said frame members.

4. A highway sign bracket comprising a framework composed of a plurality of frame members secured end to end to one another to form a substantially rectilinear frame, like frame members arranged to interconnect and cross-brace said first-mentioned frame members, said frame members being of substantially the same length and interchangeable with one another, means for attaching said framework to a post, and means for attaching a sign to said framework.

5. A highway sign bracket comprising a framework composed of a plurality of frame members secured end to end to one another to form a substantially rectilinear frame, like frame members arranged to interconnect and cross-brace said first-mentioned frame members, said frame members being of substantially the same length and interchangeable with one another, means for attaching said framework to a post, and clips secured to said framework and arranged for the attachment of a sign thereto.

6. A highway sign bracket comprising a framework composed of a plurality of frame members secured end to end to one another to form a substantially rectilinear frame, like frame members arranged to interconnect and cross-brace said first-mentioned frame members, said frame members having a plurality of equidistantly spaced apertures and being interchangeable and of substantially the same length, means for attaching said framework to a post, and clips secured to said framework, said clips having means for the quick attachment and detachment of signs thereto.

7. A clamp for securing a sign framework to a post comprising a band adapted to surround the post, means for tightening said band around the post, a projecting element on said band, means on said projecting element for the attachment of said framework, said projecting element having a slot therein for the reception of a connecting member, a clip slidably mounted on said band and means on said clip arranged for the attachment of additional sign-supporting members thereto.

8. A clip for the attachment of signs to highway sign brackets comprising a base member, and a bent member of approximately U-shaped cross section secured at its ends to said base member, said base member and the central portion of said bent member each having a slot therein for the reception of sign-attaching devices.

9. A clip for use with highway sign brackets comprising an approximately U-shaped bent metal strip having side wings, aligned parallel slots therethrough adjacent said side wings.

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