C. L. PEIRCE, JR.

INSULATOR SUPPORTING BRACKET.

APPLICATION FILED APR. 6, 1916.

1,212,673. Patented Jan. 16, 1917.

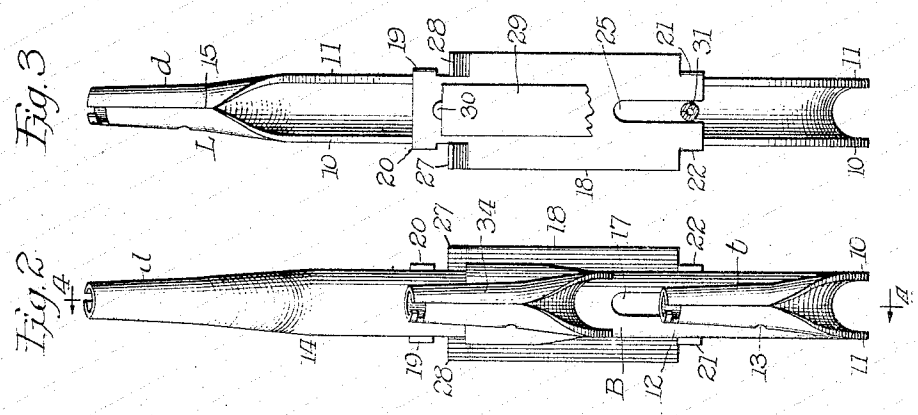


Fig. 3

Fig. 2

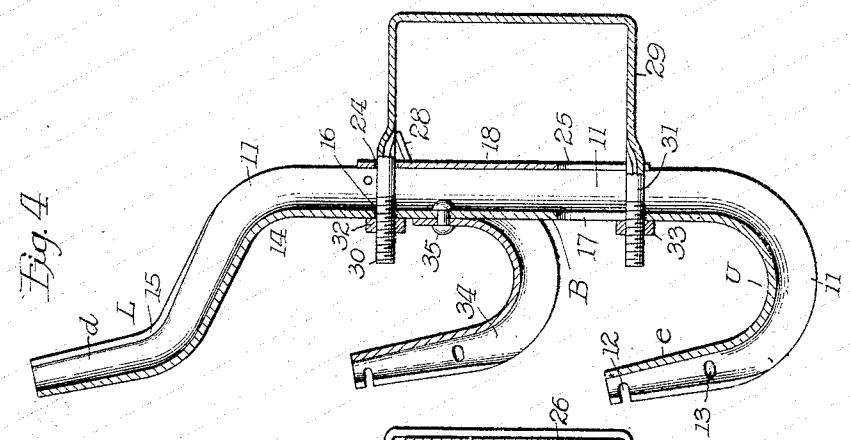


Fig. 4

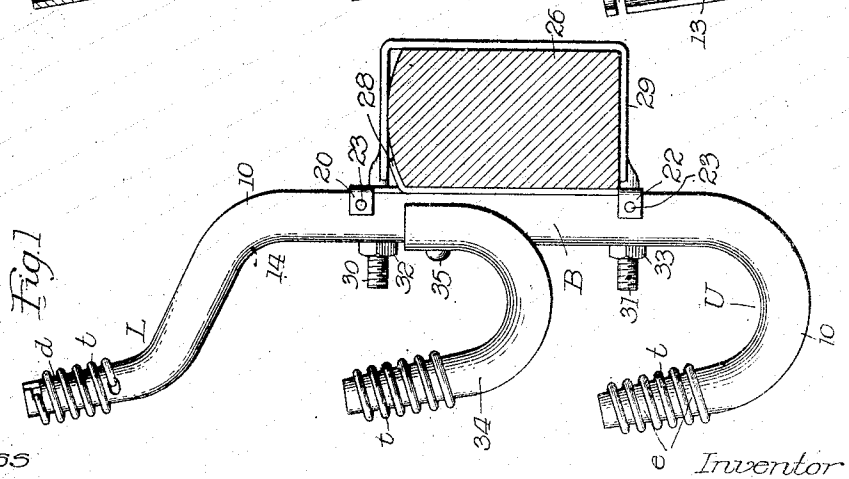


Fig. 1

Witness
Leonard W. Novander.

Inventor
Charles L. Peirce Jr.
By James R. Offield.
Atty

UNITED STATES PATENT OFFICE.

CHARLES L. PEIRCE, JR., OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO HUBBARD & CO., OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

INSULATOR-SUPPORTING BRACKET.

1,212,673. Specification of Letters Patent. Patented Jan. 16, 1917.

Application filed April 6, 1916. Serial No. 89,367.

To all whom it may concern:

Be it known that I, CHARLES L. PEIRCE, Jr., a citizen of the United States, and a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Insulator-Supporting Brackets, of which the following is a specification.

My invention relates to insulator supporting brackets which are particularly adapted for support and use on cross-arms.

One of the important objects of my invention is to provide a bracket of this class, either single or multiple point, which is formed up from a single piece of flat sheet metal of suitable gage and dimensions and bent to such cross-section at various points as to give maximum strength with minimum amount of metal and without unnecessary weight. Multiple point brackets have been bent up from stock channel bar and other stock bar but the trouble with such construction is that the necessary strength cannot be obtained where desired unless oversize stock is chosen. In other words, with stock material of fixed dimensions there will be excess metal in certain parts of the structure in order to get sufficient strength elsewhere. However, by forming up the bracket from flat sheet metal to varying cross-sections the necessary strength can be obtained at any point without excess metal at other points, and, with the same or even less weight of metal than would be necessary in stock bar structures a much stronger structure results.

Another object of my invention is to provide ample base or seating area for my improved brackets against a supporting wall or cross-arm, and this I obtain by providing a base-plate for the bracket, either separable or permanently secured thereto.

On the accompanying drawing I have shown a bracket structure embodying the various features of my invention.

In the drawing Figure 1 is a side elevational view showing the bracket secured to a cross arm which is shown in section, Fig. 2 is a front elevational view of the bracket, Fig. 3 is a rear elevational view, and Fig. 4 is a cross-sectional view on plane 4—4, Fig. 2.

The bracket shown comprises a body part B, the upper L-shaped part L, and the lower U-shaped part U. The bracket is formed up from a flat sheet metal blank of suitable dimensions and bent to cross-sections which will give the necessary strength at the various parts of the structure. As shown, the body part is of arched or U-shaped cross-section, the limbs or sides 10 and 11 extending rearwardly and being either parallel or at angles with each other. In the bend of the U-part U the sides 10 and 11 remain separate and open but at the end section *e* the sides or limbs are brought togther to form a seat of circular cross-section throughout for insulators or insulator supporting thimbles. As shown, a helical wire thimble *t* is applied, the upper and lower slots 12 and 13 being provided in the end *e* for receiving the ends of the helix.

At the upper L-part of the bracket the sides 10 and 11 remain open at the bend 14 but are gradually bent and rounded toward each other and come together at the bend 15 and throughout the end *d* so that this end is of circular cross-section throughout for receiving insulators or insulator supporting thimbles. As shown, a helical wire thimble *t* is applied like that on the U-end of the bracket. The cross-sections of the bracket are thus made in conformity with the strength necessary at the various sections and owing to this practical distribution of metal, made possible by forming the bracket member from flat sheet metal, the bracket is of maximum strength with minimum weight of metal.

Through the front of the body part B bolt holes 16 and 17 are provided through which bolts may pass to secure the bracket to a wall or other support. In order to give secure seating for the bracket against a support and to prevent cutting of a support by the edges of the sides 10 and 11 I provide a base plate 18 to be interposed between the edges of the sides 10 and 11 and the supporting surface, the plate being of height and width to give the desired support engaging area. The plate may be separate, or may be permanently attached to the bracket. As shown, the upper and lower parts of the plate are deflected forwardly to form flanges 19, 20, 21 and 22 for engaging against the sides 10 and 11 of the body part and may be secured thereto as by means of rivets 23. Where the plate is long it will be provided with bolt holes 24 and 25 in register with the holes 16 and 17 in the bracket body. Where the plate is separate and not permanently secured to the bracket, it will be held in

place by the bolts passing through its bolt holes.

As shown in the drawings, the plate particularly adapts the bracket structure for mounting on a cross-arm 26. The upper side sections of the plate are deflected rearwardly to form supporting tongues 27 and 28 for engaging with the top of the cross arm to which the bracket member may be secured by ordinary bolts or screws, or by a strap 29 which surrounds the cross arm and whose threaded ends 30 and 31 extend forwardly through the bolt holes 24 and 25 of the plate and the holes 16 and 17 of the bracket body to be engaged by nuts 32 and 33. When thus supported the tongues 27 and 28 give additional vertical support to the bracket.

If desired, intermediate insulator supporting parts may be secured to the bracket between the upper and lower parts L and U. As shown, a U-fitting 34 is secured to the bracket body by a rivet 35, the back of the fitting being of arch-shaped cross-section to snugly straddle the arched body of the bracket. The fitting is adapted at its outer end for supporting an insulator, a helical thimble *t* being shown.

The bracket structure shown and described has proven to be very efficient, its great strength with comparative lightness adapting it particularly for application to cross-arms and for comparatively heavy service. I do not of course desire to be limited to the exact construction and arrangement shown and described as changes and modifications are no doubt possible which would still come within the scope of the invention.

I claim as follows:

1. An insulator supporting bracket comprising a body part and an end part extending forwardly and upwardly therefrom, said body and end parts being of channel shaped cross-section and open at the back and the upper end of the end part being formed to receive an insulator or insulator supporting thimble, a base plate of sheet metal extending across the open back of the body part and having ears extending therefrom and being secured to the body part by said ears, and bolt holes through said body part.

2. An insulator supporting bracket comprising a body part and an end part bent forwardly and upwardly, said bracket being of a single piece of sheet metal and of channel shaped cross-section open at the back, the end of the end part being formed to receive an insulator or insulator supporting thimble, a base plate extended across the back of the body part, ears stamped from said back plate by means of which said plate is secured to the body part, tongues deflected rearwardly from said base plate to engage with the top of a support to which the bracket is secured, and bolt holes through said body part.

3. An insulator supporting bracket comprising a body part bent transversely to arch shaped cross-section and having insulator receiving ends, a sheet metal plate applied to the edges of said body part and having wings deflected therefrom for engaging with the sides of the body part, there being registering bolt holes through said body part and plate.

4. An insulator supporting bracket comprising a sheet metal body part bent transversely to arch cross-section and having an insulator receiving end, a backing plate of sheet metal bridging the edges of the body part and permanently secured thereto, said body part and plate having registering bolt holes.

In witness whereof I hereunto set my hand this 26th day of February, A. D., 1916.

CHARLES L. PEIRCE, JR.