

(No Model.)

F. C. PRICKETT.
TROLLEY WIRE SUPPORT.

No. 472,953.

Patented Apr. 12, 1892.

Fig. 1.

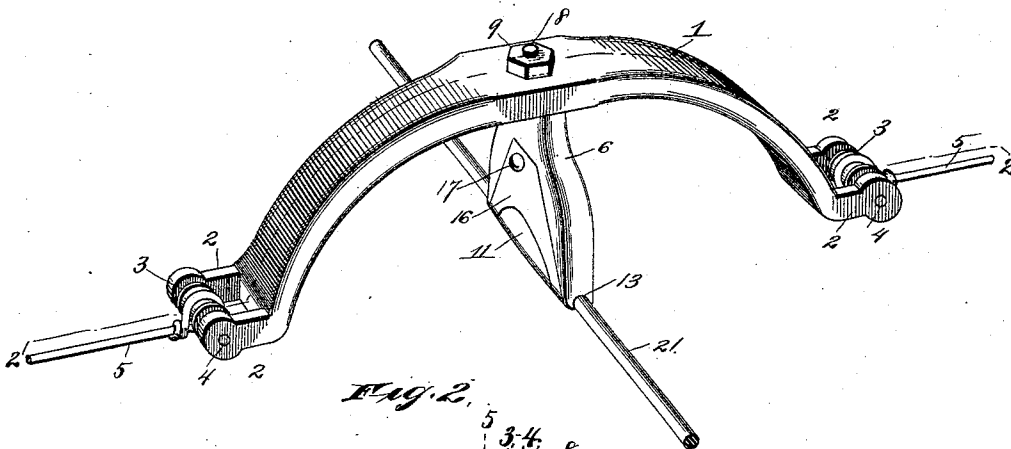


Fig. 2.

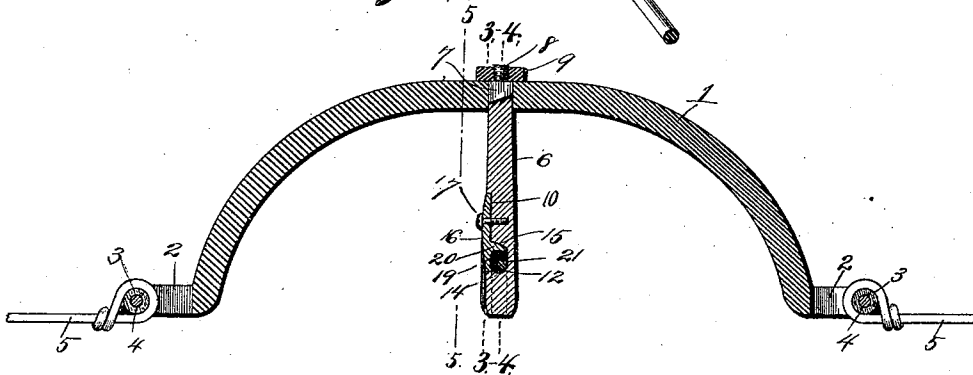


Fig. 3.

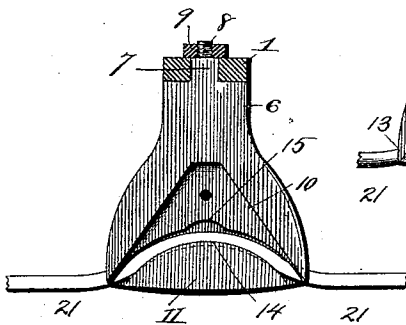


Fig. 4.

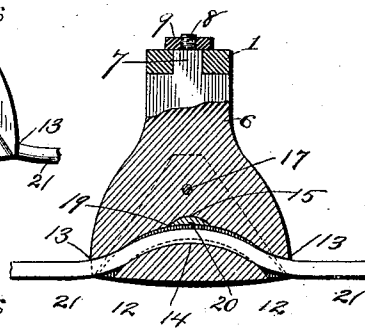
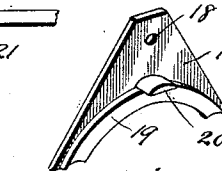


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANK C. PRICKETT, OF KANSAS CITY, KANSAS, ASSIGNOR OF ONE-HALF
TO FREDERICK W. BRUCHMANN, OF SAME PLACE.

TROLLEY-WIRE SUPPORT.

SPECIFICATION forming part of Letters Patent No. 472,953, dated April 12, 1892.

Application filed December 14, 1891. Serial No. 415,015. (No model.)

To all whom it may concern:

Be it known that I, FRANK C. PRICKETT, of Kansas City, Wyandotte county, Kansas, have invented certain new and useful Improvements in Trolley-Wire Supports, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to that class of attachments used in electric railways for supporting the main-line wire against which the trolleys run in order to take off the current for transmission to the motors.

The objects of my invention are to produce a trolley-wire support which shall be simple, durable, and inexpensive in construction and which shall at all times support the wires in proper position, particularly when weighted with accumulations of ice, snow, sleet, and the like.

A further object of my invention is to produce a trolley-wire support which can be readily placed in position and removed from position and which shall at all times insure the perfect insulation of the trolley-wires from their supporting-posts and cross-wires of similar devices.

To the above purposes my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a trolley-wire support embodying my invention. Fig. 2 is a vertical longitudinal section of the same on the line 2 2 of Fig. 1. Fig. 3 is a transverse vertical section of the same on the line 3 3 of Fig. 2. Fig. 4 is a transverse vertical section of the same on the line 4 4 of Fig. 2. Fig. 5 is a transverse vertical section of the same on the line 5 5 of Fig. 2. Fig. 6 is a detached perspective view of the retaining-plate.

In the said drawings, 1 designates the cross-

bar of the support, the said bar being preferably of cast-iron or other metal adapted for the purposes to be hereinafter explained, and being also either left perfectly plain or galvanized or otherwise protected against the weather. In any event the cross-bar is preferably of concavo-convex form, the concave side of the bar being lowermost and its convex side being uppermost. This form of the cross-bar 1 is desirable because it brings the trolley-wire and the supporting cross-wires which lead to the posts upon the same level or plane, and thus adds stability to the entire structure. In any event, however, each end of the cross-bar 1 is bifurcated, thus forming four arms 2, one pair of which is at each end of the cross-bar. Between each pair of said arms is interposed a spool 3, which is retained in position by a pin 4, the said pin passing transversely through the two arms and also longitudinally through the spool. These two spools are preferably of glass, but may be of rubber, wood, or any other insulating material or composition of insulating materials, as circumstances may render desirable. To each of these spools is connected one of the supporting or guy wires 5, which extend oppositely from each other and the opposite or outer ends of which are suitably secured to the usual posts, (not shown,) which are placed at the curbs of the street. Each of these guy-wires is shown as coiled around its corresponding spool and then around itself, and it is to be understood that the guy-wires may be secured to their spools either in this precise manner or in other suitable or preferred manner. It is also to be understood that wire or other rope may be employed as the guys in lieu of the wires 5.

6 designates the vertically-pendent bar of the support, this bar being preferably of copper or brass, but permissibly of any other material which is a good electrical conductor. The upper portion 7 of this pendent bar is reduced in transverse dimensions and is preferably square or angular in form, and, furthermore, said reduced portion is of a length corresponding to the vertical thickness of the

cross-bar 1. From the upper end this reduced portion 7 is further reduced to form an externally-screw-threaded upwardly-extending stem 8, as shown, upon which is screwed a nut 9. The arrangement is such that when the parts just described are properly assembled and the nut 9 screwed home firmly the said nut binds up the upper side of the cross-bar 1 at the middle thereof, while the shoulder left by the reduced portion 7 binds firmly against the under side of said cross-bar at the corresponding point, and consequently both bars are securely, although detachably, connected together. The pendent bar 6 is of flat form, and also gradually expands in width from its upper to its lower end, as shown. In one side of this pendent bar 6 is formed a shallow recess or cavity 10, the outer side walls or margins of which diverge outwardly and downwardly to the two opposite lower corners of the bar, while the bottom margin of said cavity is of segmental or arched form, a projection 11 being thus left at the lower end of the bar 6, the outer surface of which is flush with the corresponding outer side of the bar.

12 designates a segmental or arched form groove, which is formed in the lower part of the bar 6 and which extends transversely thereof when said bar is viewed toward its side. This groove communicates at its outer side with the cavity 10, and the lower margin of the groove corresponds with the upper margin of the projection 11, said groove furthermore opening at its ends at the two opposite lower corners of the bar 6. At each extremity of this groove 12 its upper wall or margin is formed with a recess 13 for a purpose to be presently described, and midway of its length the lower margin of the groove is formed with a recess or depression 14, also for a purpose to be hereinafter described. The upper margin of the groove 12 midway of its length is also formed with a recess 15, the purpose of which will likewise be explained. 16 designates a covering or retaining plate, which is also preferably of copper, brass, or other material which is a good conductor of electricity, and the side edges or margins of which diverge outwardly and downwardly, while its lower margin is of segmental form, the said plate thus corresponding in marginal form with the cavity 10 and with the upper margin of the projection 11. This plate is secured removably in position by a screw 17, which passes through an opening 18 in the upper part of the plate and into an internally-screw-threaded socket in the corresponding part of the bar 6, the plate being thus firmly but removably attached to the bar 6, so as to cover and close the cavity 10. On its inner side near its lower segmental margin the covering or retaining plate 16 is formed with a segmental flange 19, which is parallel with the said lower margin of the

plate and which is at a certain distance from said margin, as hereinafter described.

At a point midway of the length of the flange 19 the plate 16 is formed (on its inner side) with an inwardly-extending lug or projection 20, the purpose of which will be fully explained.

The action of the above-named structure is as follows: The cross-bar 1, having been properly connected to the guys 5, and the latter having been properly connected to the posts, the line-wire 21 is laid in the groove 12. That portion of the wire which is within the groove 12 is subjected to a crimping operation by a suitable implement for the purpose, and is forced downward into the recess 14 and upward into the two recesses 13, so as to prevent the wire from slipping longitudinally in the groove. The retaining or closing plate is now placed in position and secured removably therein by its screw 17. When in this position, the flange 19 of the plate 16 prevents the wire from rising out of the groove, and this action is insured by the projection 20, while the plate 16 itself prevents the wire from coming out of the cavity 10.

From the above description it will be seen that I have devised a support for trolley-wires which is simple, durable, and inexpensive in construction, easily applied and removed, capable of perfectly insulating the trolley-wire from its posts, and so constructed as to absolutely prevent the falling of the wire.

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

1. An improved support for trolley-wires, comprising a vertical bar having at one side a cavity, and a groove communicating with said cavity at its lower margin and opening at opposite sides of the bar, and a retaining-plate connected to the side of the bar and overlying the cavity and groove, substantially as set forth.

2. An improved trolley-wire support comprising a cross-bar, a vertical bar connected to said cross-bar and provided at one side with a cavity, a groove communicating with said cavity at its lower margin and opening at opposite sides of the bar, and a retaining-plate connected to the side of the bar and covering the cavity and groove, substantially as set forth.

3. An improved trolley-wire support comprising a vertical bar having a cavity in one of its sides, and a curved groove formed in said bar and communicating with the cavity at the lower margin thereof and provided with recesses in its upper and lower margins, substantially as set forth.

4. An improved trolley-wire support comprising a vertical bar having a cavity in one of its sides, a curved groove formed in the lower part of the bar and communicating with the cavity at the lower margin thereof, and a

retaining-plate covering said cavity and having on its inner side a flange conforming to the shape of the groove, substantially as set forth.

5 5. An improved trolley-wire support comprising a vertical bar having a cavity in one of its sides and provided with a curved groove communicating with said cavity, and a retaining-plate covering said cavity and provided on its inner side with a flange conform-

ing to the shape of the groove and also with an inwardly-extending lug or projection entering said cavity, substantially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

FRANK C. PRICKETT.

Witnesses:

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