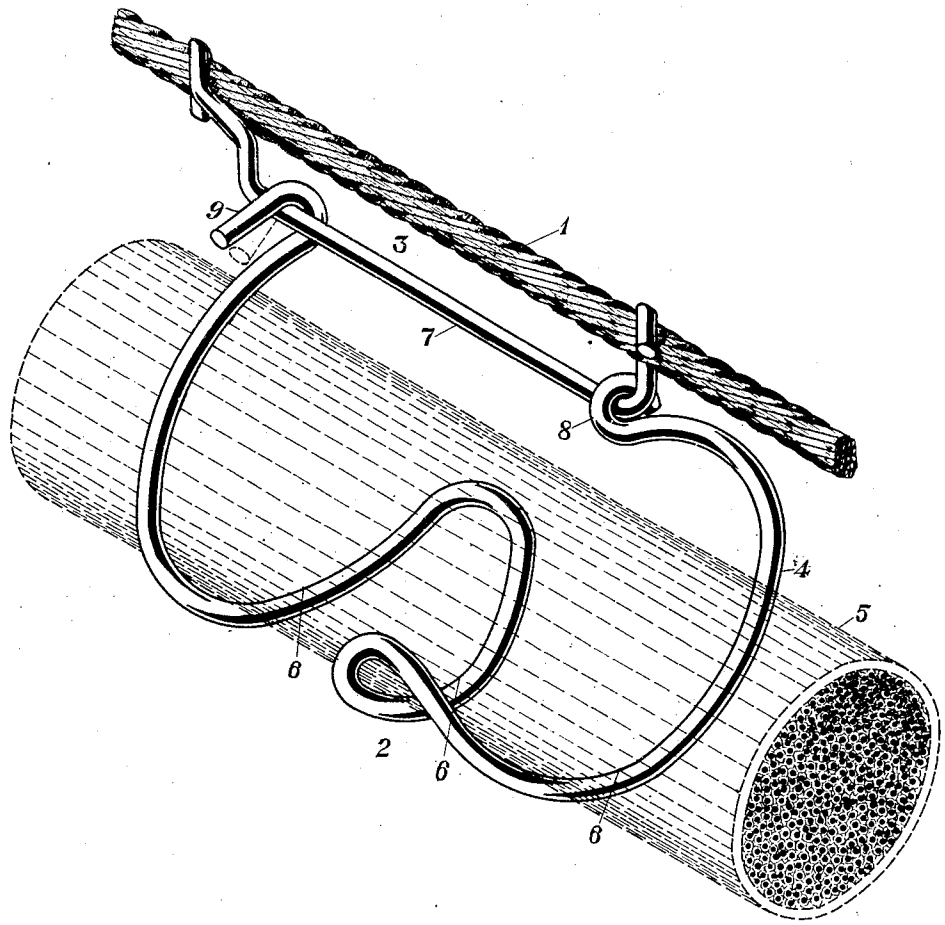
B. GHERARDI.

ANTI-ABRASION CABLE SUPPORT.

APPLICATION FILED NOV. 26, 1918.

1,336,558. **Patented Apr. 13, 1920.**



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ANTI-ABRASION CABLE-SUPPORT.

1,336,558. Specification of Letters Patent. Patented Apr. 13, 1920.

Application filed November 26, 1918. Serial No. 264,259.

To all whom it may concern:

Be it known that I, BANCROFT GHERARDI, residing at Bayhead, in the county of Ocean and State of New Jersey, have invented certain Improvements in Anti-Abrasion Cable-Supports, of which the following is a specification.

This invention relates to supporting devices, and more particularly to means for suspending electrical transmission cables from a messenger strand which is firmly attached to poles spaced at definite intervals along a transmission line.

For some time past it has been customary to support aerial telephone, telegraph or power transmission cables by means of rings attached to the messenger strand, which is in turn supported by and securely attached to poles. These rings vary widely in their form and mode of attachment to the messenger strand, but, in general, they have been designed so as to grip the strand tightly and thereby avoid, in so far as practicable, any movement along the strand or any lateral movement about the strand as an axis. After the rings have been placed upon the strand, the cable to be supported is drawn through successive rings by any suitable means, such as a rope, which has been previously threaded through the rings. It has been observed that cables suspended from messenger strands by means of rings have, after varying periods of time, shown signs of wear, such as cutting and cracking where supported by the first few rings on each side of the poles to which the messenger strand is attached.

A careful investigation of the cause of this trouble leads to the conclusion that the cutting or abrasion of the sheath by the rings is caused primarily by the swinging or vibrating of the cable, which induces a lateral movement of the cable in the ring near the poles. As a result of this motion, the cable sheath rubs against the rings and is gradually cut away by the more or less rough surface of the rings. This, of course, permits the entrance of moisture into the cable and circuit troubles result.

My invention consists in a ring which is capable of attachment to the strand in a manner which will prevent longitudinal movement along the strand, and is also free to swing laterally with the lateral movement of the cable, thereby substantially avoiding any relative movement of the cable and the ring, and consequently practically eliminating the abrasive effects heretofore experienced with rings that are rigidly attached to the messenger strand.

My invention will be best understood from the attached drawing in which 1 represents the messenger strand, and 2 represents the cable support consisting of a yoke 3, having its ends adapted to tightly grip the messenger strand, and a suspended ring 4, which is connected with and adapted to rotate about the member 7 of the yoke 3. The cable 5 shown in the drawing in dotted lines, rests within the suspended ring 4 upon the upper surfaces 6 of the arms of this ring. The yoke 3 is rigidly fastened to the strand in a well known manner so that the ring will not be moved longitudinally along the strand when the cable is being drawn through the ring or at any other time. The ring 4 is adapted to swing freely about the bar 7 of the yoke 3. It has been found desirable in practice to attach one end of the said support to the yoke 3 by a closed loop 8 in the form of an eye and to leave the other end or loop 9 of the said support open, as shown by the drawing, in order that the ring may be placed around cables previously installed, whenever it is desired to substitute this type of ring for the old rigid type. When the ring is in position, the end 9 of the ring may be closed as shown by the dotted lines, and slippage from the yoke 3 is thereby avoided. If the rings are placed prior to the installation of the cable both ends of the ring 4 may be attached to the yoke 3 in the manner shown at 8 in the drawing.

It will be seen, therefore, that by means of this invention the ring 4 being adapted to swing freely, will follow the lateral movement of the cable 5, which by its own weight adheres to the supporting surfaces 6 of the arms of the ring. Consequently, there is substantially no relative movement between the cable and the supporting portion of the ring, and as a result thereof, the abrasive effect is negligible.

Although this invention has been shown as embodied in a particular form, it is to be understood that it is capable of embodiment in many and widely varied forms

without departing from the spirit of the invention, as defined in the appended claims.

Having thus described the invention, what I claim and desire to secure by Letters Patent is:

1. A cable supporting device, adapted to be suspended from a messenger strand, having a yoke provided with oppositely facing hooks adapted for rigid attachment to said strand, and a cable supporting ring provided with oppositely facing loops for rotatably suspending said ring from the yoke.

2. A cable supporting device formed from two pieces of spring wire comprising a yoke provided with a bar having at its ends upwardly extending and oppositely facing hooks adapted to engage a messenger wire, and a cable ring constituting a support for a cable, said cable ring having a loop at either of its ends whereby it is adapted to be rotatably suspended from said yoke.

3. A cable supporting device formed from two pieces of spring wire, including a yoke comprising a bar having at its ends upwardly extending and oppositely facing hooks adapted to engage a messenger wire, and a cable ring constituting a support for a cable, said cable ring having a loop at either of its ends, the loops being hinged to said bar in proximity to each of its upwardly extending hooks, whereby it is adapted to be rotatably suspended from said yoke.

In testimony whereof, I have signed my name to this specification this twenty-fifth day of November, 1918.

BANCROFT GHERARDI.

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