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DRAFTSMAN.

No. 825,070. PATENTED JULY 3, 1906.

R. S. PEIRCE.

METHOD AND APPARATUS FOR HANGING AERIAL CABLES.

APPLICATION FILED FEB. 27, 1905.

Fig. 1.

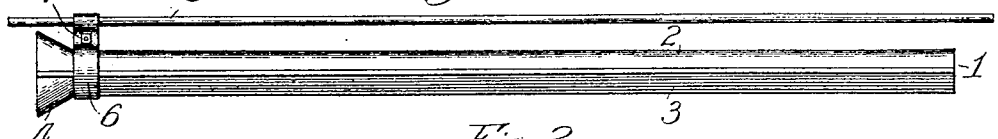
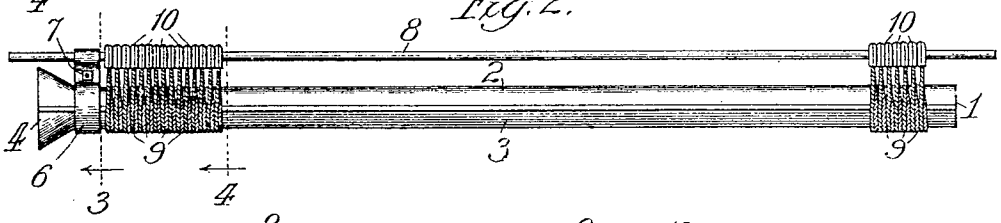


Fig. 2.



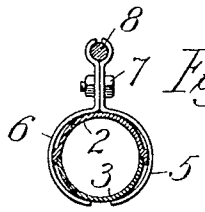


Fig. 3.

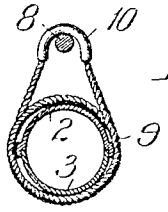
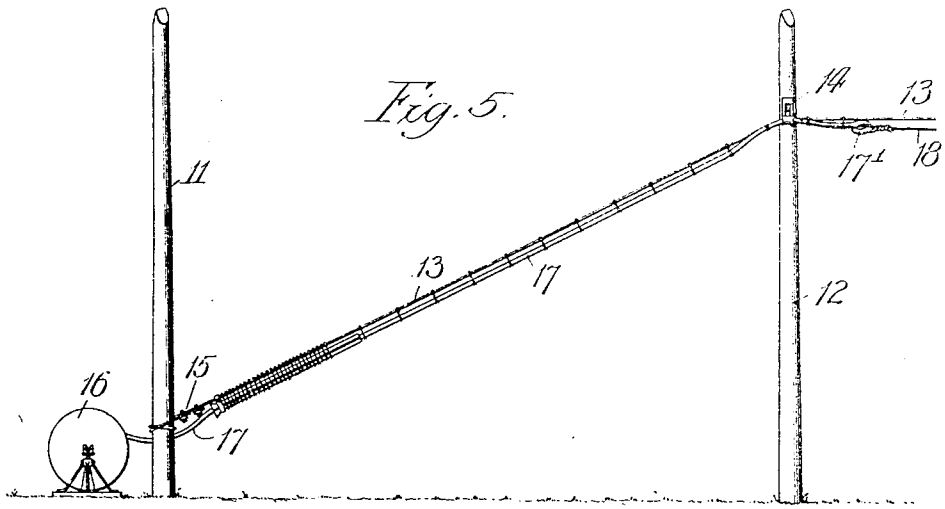


Fig. 4.

Fig. 5.



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METHOD AND APPARATUS FOR HANGING AERIAL CABLES.

No. 825,070. Specification of Letters Patent. Patented July 3, 1906.

Application filed February 27, 1905. Serial No. 247,490.

To all whom it may concern:

Be it known that I, RALPH S. PEIRCE, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Methods and Apparatus for Hanging Aerial Cables, of which the following is a specification.

My invention relates to an improvement in methods and apparatus for hanging aerial cables.

It is particularly adapted to the hanging of cables when a certain type of cable-hanger devised by me is to be used. This cable-hanger consists of a closed loop of marlin or other similar suitable material, the ends being fastened together by a metal clip, preferably of zinc, which serves not only as a fastening for the ends of the marlin, but also as a suitable member for engaging the messenger-wire or supporting-strand. This particular type of hanger was described in an application for Letters Patent filed by me on the 27th day of February, 1905, Serial No. 247,489.

The present invention relates to the method of applying this and similar types of hanger in erecting aerial cables and also to certain apparatus necessary for carrying out this method.

I have illustrated my invention in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view of what I term a "hanger-cartridge." Fig. 2 is a similar view of this cartridge with a number of cable-hangers applied to it. Fig. 3 is a sectional view of the cartridge on the line 3 of Fig. 2 and looking in the direction of the arrow. Fig. 4 is a sectional view of the cartridge, taken on the line 4 of Fig. 2 and looking in the direction of the arrow. This view shows clearly one of my improved hangers, as described in the above-mentioned application, in its relation to the cartridge. Fig. 5 is a general view in diagram, showing the method of using my invention.

The main portion of the cartridge is composed of a split tube 1, having parts 2 and 3 fitting together, as best shown in Figs. 3 and 4. One end of this tube is provided with a bell-mouth 4 for facilitating the passage of the lead-covered cable into the tube. At that end of the tube near the bell-mouth is placed a metal clamp consisting of the parts 5 and 6, secured together by the bolt 7 and suitable nuts. This clamp serves, primarily, to bind the two halves 2 and 3 of the tube together, but also to clamp the tube in proper relation to a rod 8, as clearly shown.

The hanger (best shown in Fig. 4) consists, as stated, in a closed loop of marlin 9, adapted to pass twice around the cable to be supported. Within this loop of marlin and under the metal clip 10 of the hanger the messenger-wire is also passed. In order to have the hanger assume the proper position with respect to the cable and the messenger-wire, it becomes necessary to pass the ends of both messenger-wire and cable through the hanger, this being true because the hanger is originally made in a closed loop. It is to facilitate this passing of the cable and messenger-wire through the hangers that my cartridge is used.

The cartridge, assembled as shown in Fig. 1, has applied to it over the right-hand end, as shown in that figure, the hangers, the U-shaped metal clip 10 of the hanger being placed astride the rod 8 and the marlin 9 being passed twice around the tube. The tube is thus filled with hangers, its entire length, if desired, being occupied by them. The function of the rod 8 is merely to keep the hangers in the proper position on the tube, holding the metal clip 10 of the hanger in the same relative position that it will occupy with respect to the messenger-wire and cable after the cable supported by it is in place.

Referring now to Fig. 5, the method of using this cartridge and its attached cable-hangers will be made clear. Numerals 11 and 12 represent two telephone-poles, or instead of the pole 11 a stud or post may be used. The messenger-wire 13 after being stretched throughout the length of the run of the cable to be strung is led down from the hanger 14 on the pole 12 and passed through all of the metal clips 10 on the cable-hangers, the rod 8, belonging to the cartridge, having previously been removed for this purpose. The messenger-wire is then secured to the pole or stud 11 several feet from the ground by a cable-clamp 15 or in any other suitable way. The reel 16, carrying the cable 17, is then placed near the end of the messenger-wire, as shown, and the end 17′ is passed into the bell-mouth 4 of the tube 1 and pushed entirely through the tube. The running-rope or running-line 18, which has previously been laid alongside of the messenger-wire in the supports 14, is then secured to the end of the cable, and by it the cable is drawn slowly

up the incline along the messenger-wire 13 and over the entire length of the run.

As the cable is drawn through the tube 1 a man stationed at this tube slides the hangers off of the tube and onto the cable at predetermined intervals. Each hanger then binds closely around the cable-sheath, and the clip 10 on the hanger slides up the messenger-wire to the first pole and then along the horizontal portion of the messenger-wire.

Where a length of cable is to be erected that would require more than the number of hangers that could be applied to one cartridge, then several cartridges are used, the cable end and messenger-wire being passed through all of them before starting to draw the cable. As soon as all the hangers on one of the cartridges are exhausted then the tube which held them is taken off of the cable, which is readily done by virtue of the tube being split. The hangers on the next cartridge are then used in the same manner.

The support 14 on the pole 12 is duplicated on all of the poles on which the cable is to be supported. This support is described by me in another application filed on the 27th day of February, 1905, Serial No. 247,491. It is of such a nature as to form a shoe or runway in which the messenger-wire and running-line may temporarily rest before the cable is drawn up and in which the cable rests while being pulled up. The cable and hangers slide through this shoe, the supporting-surface of which is polished to prevent undue friction.

I do not wish to limit myself in all respects to the exact details of the invention here shown and described, as modifications may be made which will lie within the scope of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a device for erecting aerial cable, a plurality of cable-hangers having members for embracing the cable, and a device for holding said members in alinement to allow the cable to pass through them, substantially as described.

2. In a device for use in erecting aerial cable, a cable-hanger-supporting appliance having an opening through which the cable may pass, a plurality of cable-hangers having members for embracing the cable, said hanger-supporting appliance serving to hold said cable-hangers in alinement, substantially as described.

3. In a device for use in erecting aerial cable, a plurality of cable-hangers having cable-supporting members, and an appliance for holding said cable-supporting members in alinement to allow the cable to pass through them, substantially as described.

4. In a device for use in erecting aerial cable, a tube through which the cable may pass, and a plurality of cable-hangers having members for embracing the cable, said tube extending through said members, substantially as described.

5. In a device for use in erecting aerial cable, a tube through which the cable may pass, a plurality of cable-hangers having loops of flexible supporting-cord for embracing the cable, said loops being passed around said tube, substantially as described.

6. In a device for use in erecting aerial cable, a longitudinally-divided tube through which said cable may pass, a plurality of cable-hangers having loops of flexible supporting-cord for embracing said cable, metallic clips on said hangers for embracing the strand for supporting said cable, and means for holding said clips in that relative position with respect to the tube, that they will bear to the cable when supported upon the messenger-wire, substantially as described.

7. In a cartridge for use in erecting cables on messenger-wires, a tube through which the cable may pass, and a rod secured in a position parallel to said tube and occupying the same relative position with respect to the tube as does the messenger-wire with respect to the cable which it supports, substantially as described.

8. In a cartridge for use in stringing cables on messenger-wires, a longitudinally-divided tube through which the cable may pass, and a rod secured in a position parallel to said tube and occupying the same relative position with respect to the tube as does the messenger-wire with respect to the erected cable, substantially as described.

Signed by me at Chicago, county of Cook, State of Illinois, in the presence of two witnesses.

RALPH S. PEIRCE.

Witnesses:
J. M. HUMISTON,
CHARLES I. COBB.