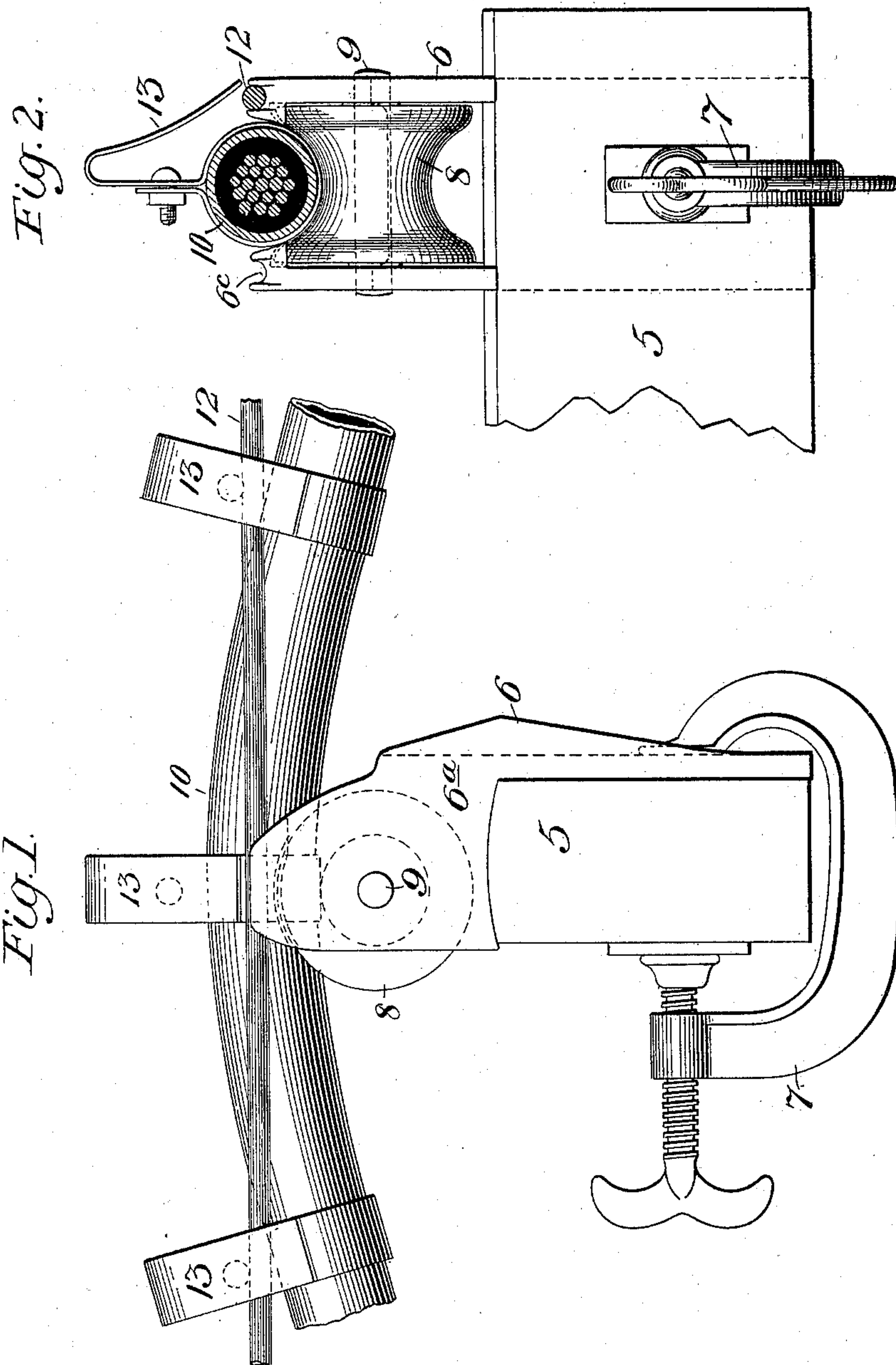


(No Model.)

F. A. CANNON.
CABLE STRINGER.

No. 603,991.

Patented May 10, 1898.



Witnesses:
Edith Hunsworth.
Henry Deitz.

Inventor:
Frank A. Cannon.
[Signature]
Attorney.

UNITED STATES PATENT OFFICE.

FRANK A. CANNON, OF DENVER, COLORADO.

CABLE-STRINGER.

SPECIFICATION forming part of Letters Patent No. 603,991, dated May 10, 1898.

Application filed December 3, 1897. Serial No. 660,716. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. CANNON, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Cable-Stringers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in means to facilitate the placing of aerial cables upon their supporting cross-arms and the suspension-wire.

The invention is specially designed for use in connection with electric cables composed of a number of wires placed within a lead tube or sheath, the wires being insulated from each other within the tube. The invention may, however, be employed for any similar or analogous purpose. This style of cable is much used in telephone, telegraphic, and other electric service. It is provided with hooks located at suitable intervals, the said hooks engaging a suspension-wire supported by cross-arms attached to upright poles. Heretofore much labor has been required to support the cable at points where the cross-arms are located in order to prevent the injury of the lead sheath by rubbing on the said arms during the stringing operation. It will be readily understood that care must be exercised to prevent the sheath from wearing, since an opening therein would allow moisture to enter and eventually destroy the insulation. This would result in short-circuiting the current and ruin the cables until the trouble was located and remedied.

Having thus briefly outlined the object of the invention and the difficulties it is designed to overcome, I will proceed to describe the same in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 illustrates my improvement in use. The cross-arm is shown in end view and a portion of the cable and

suspension-wire in side elevation. Fig. 2 is a cross-section taken through the cable and suspension-wire, the other parts being shown in elevation.

Similar reference characters indicating corresponding parts in these views, let the numeral 5 designate the cross-arm, to which is fastened a bracket 6 by means of a suitable screw-clamp 7. The upper part 6^a of this bracket rests on the cross-arm, above which it projects sufficiently to receive a roller 8, which is mounted on a spindle 9, journaled in the bracket. The face of the roller is concave to fit the cable 10. Each arm of the bracket is provided with a groove 6^c, located above the roller. These grooves are located on opposite sides of the cable when the latter is in place. They are adapted to receive the suspension-wire 12 during the operation of placing the cable in position. Only one groove is utilized at a time, since there is only one suspension-wire. The cable is provided with hooks 13, which are clamped thereon at suitable intervals.

In preparing to string a cable-line the suspension-wire 12 is placed in position on the cross-arms 5. One of my improved devices is clamped to each of these cross-arms for a distance on the line equal to the length of the cable-section to be handled at one time. As each device is attached to the cross-arm the suspension-wire is lifted from the cross-arm and placed in one of the grooves 6^c. After the hooks 13 have been attached to the cable one end of the latter is carried to the cross-arm of the pole at one terminal of the line or where the stringing of the cable is to commence. The cable is placed on the roller 8 of the arm and a rope attached to its extremity. This rope is stretched over all of the cross-arms to which my improved bracket and roller have been attached. The rope should engage the rollers. To the opposite end of this rope is attached a team or any other power capable of drawing the cable-section into position on the cross-arms. As the cable is moved along by the power employed the rollers turn and thus prevent any frictional wear upon the cable. As the portion of the cable containing a hook passes over any roller the hook is raised above the sus-

pension-wire, but after leaving the roller the cable sags and the hooks automatically engage or reengage the said wire. This operation is repeated as often as a hook passes
 5 from one side of a cross-arm to the other during the movement of the cable. Hence it will be observed that my improved device obviates the necessity of having men on the poles to lift the cable, prevent its dragging
 10 on the cross-arms, and to hook it upon the suspension-wire after it has passed beyond the cross-arms. After any section of the cable has been placed in position in the manner explained the clamp 7 is loosened and
 15 each roller-carrying bracket removed from its cross-arm. As the brackets are removed the cable and suspension-wire are let down upon the cross-arms, where they normally rest and which subsequently form the direct support therefor. The roller-carrying brackets
 20 are then attached to other cross-arms on the line and another section of cable laid in the same manner as heretofore explained, this operation being repeated until the entire cable-line is suspended.

A single cross-arm only is shown in each view of the drawings, while the supporting-pole is omitted altogether. This showing, however, is believed sufficient to illustrate
 30 my invention, as a more extended showing would simply amount to a duplication of parts.

In Fig. 1 the proximity of the hooks to each other is exaggerated as compared with the
 35 scale of the other parts. In practice these hooks are usually placed about two feet apart. The number of suspension-hooks is immaterial and has nothing to do with my invention.

40 It must also be understood that I do not limit the invention to the details of construction shown and described, as I am aware that many other forms may be employed without departing from the spirit of the invention.

45 Having thus described my invention, what I claim is—

1. In a cable-stringer, the combination with suitable means for supporting the cable and suspension-wire, of a bracket adapted to be
 50 attached to said means, and a roller journaled on said bracket and adapted to engage the cable, the bracket being provided adjacent

the roller with a ledge for supporting the suspension-wire.

2. In an aerial cable-stringer, the combination with suitable means for supporting the cable and suspension-wire, of a bracket detachably applied to said means and projecting above the same, and a roller journaled in the upper part of the bracket and adapted to engage the cable during the operation of stringing, the bracket being provided with a groove or recess adjacent the roller, to receive the suspension-wire.

3. In an aerial cable-stringer, the combination with means for supporting the cable and suspension-wire, the cable being provided with hooks to engage said wire, of a bracket detachably applied to said supporting means and projecting above the same, a concave-faced roller journaled in the upper part of the bracket and adapted to support the cable during the stringing operation, the bracket being provided adjacent the roller with a groove or recess adapted to receive the suspension-wire, the construction being such that as the cable is drawn over the roller its hooks are disengaged from the suspension-wire, but reengage the same automatically as the hooks leave the roller.

4. In an aerial cable-stringer, the combination with suitable means for supporting the cable and suspension-wire, of a bracket detachably applied to said means, a roller journaled in said bracket and adapted to engage the cable during the operation of stringing, and means located adjacent the roller for supporting the suspension-wire.

5. In an aerial cable-stringer, the combination with suitable means for supporting the cable and suspension-wire, of a roller detachably mounted on said means and projecting above the same, said roller being adapted to support the cable during the operation of stringing, and suitable means located adjacent the roller and adapted to support the suspension-wire in approximately the same plane as the roller.

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

FRANK A. CANNON.

Witnesses:

ISHAM R. HOWZE,
 EDITH HIMSWORTH.