Oct. 7, 1952 H. C. THOMAS 2,613,256

WIRE STRINGING DEVICE

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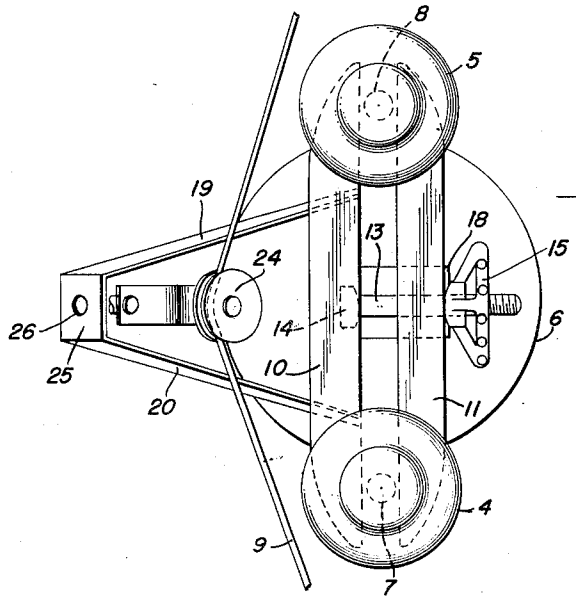


Fig. 1.

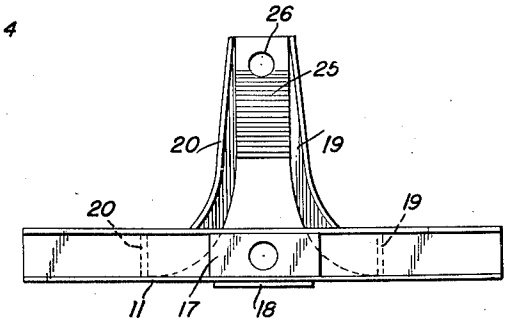


Fig. 3.

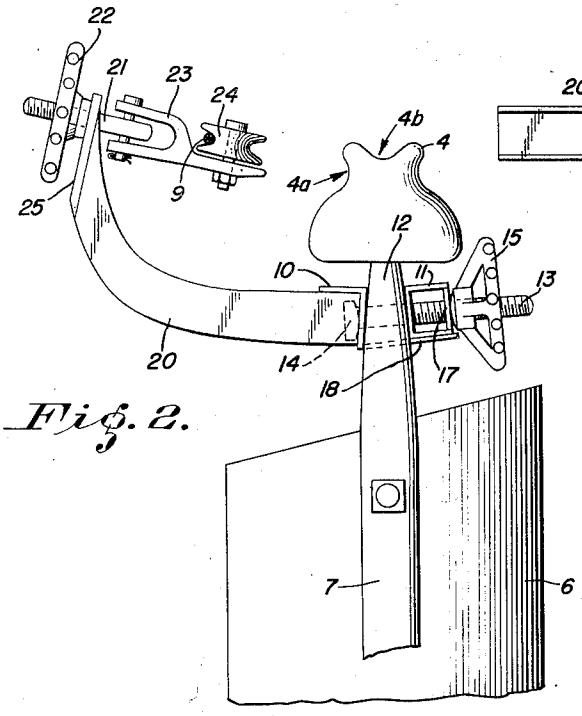


Fig. 2.

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WIRE STRINGING DEVICE

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6 Claims. (Cl. 175—376)

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This invention relates to a device for facilitating the stringing and sagging in of the wires of a transmission line, that is, a device for supporting the wire during the stringing and sagging in of the wire in such manner that the sagged wire may be readily placed upon the insulator. The invention is especially useful at locations where the transmission line changes direction.

It is an object of this invention to provide a wire stringing and sagging device which may be easily mounted in and removed from its working position adjacent the insulators which are to support the wire.

Another object of this invention is to provide an improved wire support for use in stringing and sagging in of transmission lines, the support being so constructed that the strung and sagged in wire may be simply placed on the insulator without the use of any auxiliary wire holding or lifting devices.

Certain wire stringing devices now in use are designed to be clamped to the cross-arm which supports the insulators, but such devices cannot be used on pole-mounted insulators. Also, at a location where the line changes direction, these devices cannot be used on the end of the cross-arm extending to the outside of the bend because the arm does not extend far enough beyond the insulator to provide a seat for the device.

A further object of this invention is to provide a wire stringing and sagging device which, instead of being clamped to the cross-arm, is clamped to the insulator supporting pins below the insulators and supports the wire in such position in respect to the top of the insulator that the strung and sagged in wire may be easily placed on the insulator. Accordingly, my device is useful on both pole-mounted and cross-arm mounted insulators.

Other and further objects of this invention will be apparent to those skilled in the art to which it relates from the following specification, claims and drawing.

In accordance with this invention there is provided an improved device for facilitating the stringing and sagging in of the wires or cables of a transmission line. This device consists of a wire or cable supporting pulley that is mounted upon a bracket-like device clamped to a pair of insulator pins mounted on a cross-arm or a pole top. The wire or cable supported by the pulley is free to move forward or backward while sagging in so that the sag in adjacent spans is equalized. After the transmission wire or cable is sagged to the proper amount the pulley supporting it is moved by adjustment of a hand wheel so that the wire or cable is moved toward the top of the insulator or insulators on the cross-arm or pole top. The wire may then be

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fastened to the insulators and the stringing device may be removed by loosening the clamp.

Referring to the drawing briefly:

Fig. 1 is a plan view of this device clamped to a pair of pole-mounted insulator pins, showing the wire being strung and sagged in, positioned on the pulley thereof;

Fig. 2 is a side elevational view of the arrangement shown in Fig. 1;

Fig. 3 is a front view of the pulley-supporting bracket of the device.

In the drawing my wire stringing device is illustrated as applied to a pair of pole-mounted insulators located on a pole at a point where the transmission line changes direction. It will be understood, however, that the insulators may be supported at one end of the usual double cross-arm. As shown, a pair of insulators 4 and 5 are mounted on opposite sides of a pole 6 by a pair of insulator pins 7 and 8 secured on opposite sides of the pole and extending above the top of the pole. The transmission wire or cable is shown at 9.

The wire stringing device is supported upon the insulator pins 7 and 8 by a clamp formed of an angle iron 10 and a channel iron 11 arranged in parallel relation on opposite sides of pins 7 and 8. These iron members 10 and 11 are clamped to the insulator pins 7 and 8 a short distance below the insulators by the bolt 13 carrying threaded hand wheel 15. The bolt 13 is provided with a head 14, the inside surface of which is made somewhat arcuate so as to engage adjacent surfaces of the angle iron 10 at a slight angle when this angle iron is clamped against the tapered portion of the insulator pins. The hand wheel 15 of the bolt 13 engages the insert 17 that is welded into the central portion of the channel iron 11. Another plate 18 is welded to the central portion of the bottom edge of the angle iron 10 and extends under the channel iron 11 to support and hold this channel iron substantially parallel to the angle iron during the clamping of this device on the insulator pins.

The pulley-supporting bracket is formed of a pair of arms 19 and 20 welded to the angle iron 10 to form a braced support for the eye bolt 21, hand wheel 22, clevis 23 and the pulley 24. The arms 19 and 20 are made of a curved configuration so that they extend out and away from the angle iron 10 in a substantially horizontal direction for a short distance and then curve upwardly to support the plate 25 to which the outer ends of arms 19 and 20 are attached. The plate 25 is provided with a hole 26 for receiving the eye bolt 21 and this hole is positioned above the plane of the top of the insulator so that the pulley 24 will support the wire 9 being strung and sagged in, to one side of and somewhat above the

circular wire receiving grooves 4a located just below the tops of the insulators.

When preparing to install and sag in the electrical conductor 9 this device is clamped to the pins 7 and 8 by the hand wheel 15, with the pulley bracket extending to the outside of the bend in direction of the transmission line. The eye bolt 21 is screwed up by the hand wheel 22 so that the pulley 24 is moved away from the insulators as far as the arms 19 and 20 will permit. The wire or cable 9 is strung on a number of poles and is placed in the pulley 24 and is allowed to move freely in this pulley so that it assumes equal sagging in adjacent spans. After the wire or cable is sagged in, the hand wheel 22 is rotated to permit the pulley 24 to move toward the insulators 7 and 8 so that the wire may be easily placed into the circular grooves of these insulators. Pulley 24 is sufficiently small so that it can enter the space between the two insulators without damaging them. After tying the wire 9 to the insulators, the device is then removed from the pins simply by loosening the hand wheel 15, without interferring with the wire 9.

It will be understood that my device may be used at insulator locations where the line is straight, and in this case the transmission conductor will be located in the transverse groove 4b formed in the tops of the insulators.

While there has been described a preferred embodiment of this invention in the foregoing specification, it is not desired to limit this invention to the exact details described and illustrated except in so far as those detailed are defined by the appended claims.

I claim:

1. A device for stringing and sagging in wires comprising a pair of elongated clamp members, said members being of substantially the same length, clamping means joining said member for clamping said members to a pair of spaced insulator supporting pins beneath the insulators, a bracket extending outwardly from the midportion of one of said clamp members and having the free end thereof extending upwardly beyond the upper ends of said insulators, a grooved pulley for supporting the wire to be sagged in, a pulley support including means for mounting said pulley for rotation on its axis, adjustable means supporting said pulley support from the upper end of said bracket and in a position such that said pulley is located to one side of said insulator pins and substantially equidistant therefrom, said adjustable supporting means providing for movement of said pulley in substantially a horizontal direction to enter the space between the tops of said insulators.

2. A device according to claim 1 wherein said clamping means comprises a threaded bolt mounted at the center of said clamp member carrying said bracket and extending through a hole formed at the center of the other clamp member, and a hand wheel threaded on the outer end of said bolt.

3. A device according to claim 1 wherein said adjustable means for supporting said pulley comprises a threaded bolt secured to said pulley support and extending through a hole formed in the upper end portion of said bracket, and a hand wheel threaded on the outer end of said bolt.

4. A device for stringing and sagging in wires comprising a pair of elongated clamp members, said members being of substantially the same length and having holes formed therethrough substantially in the centers thereof, a bolt positioned in said holes to clamp said members to insulator supporting pins arranged in spaced relation, a pair of arms each having one end attached to one of said members and extending away therefrom, a plate, the other ends of said arms being attached to said plate to support said plate in braced relation, a wire receiving pulley, means attached to said plate for supporting said pulley so that the wire being strung may be readily placed on or lifted from said pulley, and means for adjusting said last mentioned means so that said pulley may be moved along a path substantially midway between the tops of the insulators supported on said pins and the sagged wire may be placed to rest within the grooves of said insulators.

5. A device for stringing and sagging in wires comprising an angle iron member, a channel iron member, said members being of substantially the same length and having holes formed therethrough substantially in the centers thereof, a bolt positioned in said holes to clamp said members to spaced insulator supporting pins, a pair of arms each having one end attached to said angle iron member and extending away therefrom, a plate, the other ends of said arms being attached to said plate to support said plate in braced relation, a wire receiving pulley, means attached to said plate for supporting said pulley so that the wire may be readily placed on or lifted from said pulley, and means for adjusting the position of said pulley along a path passing substantially midway between the tops of said insulators.

6. A device for stringing and sagging in wires comprising an angle iron member, a channel iron member, said members being of substantially the same length and having holes formed therethrough substantially in the centers thereof, a bolt positioned in said holes to clamp said members to spaced insulator supporting pins, a pair of arms each having one end attached to said angle iron member and extending away therefrom, a plate having an aperture, the other ends of said arms being attached to said plate to support said plate in braced relation, an eye bolt passing through the aperture of said plate, a wire receiving pulley, a clevis supported by the inner end of said eye bolt, means attached to said clevis for supporting said pulley so that the wire may be readily placed on or lifted from said pulley, and a hand wheel threaded on the outer end of said eye bolt so that said pulley may be moved into the space between the tops of the insulators and the sagged wire may be placed to rest within the grooves of said insulators.

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