Aug. 20, 1929. G. N. BYL 1,725,610

DROP WIRE HANGER

Filed March 28, 1928

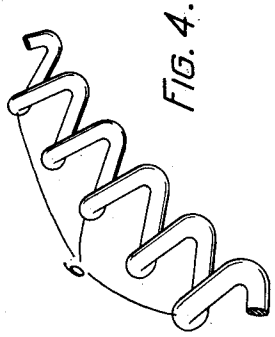


FIG. 4.

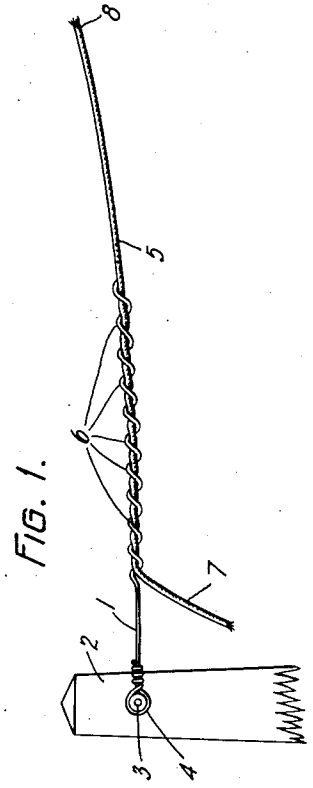


FIG. 1.

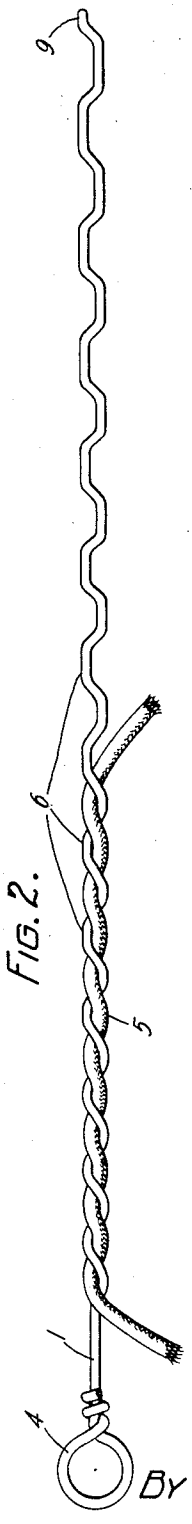


FIG. 2.

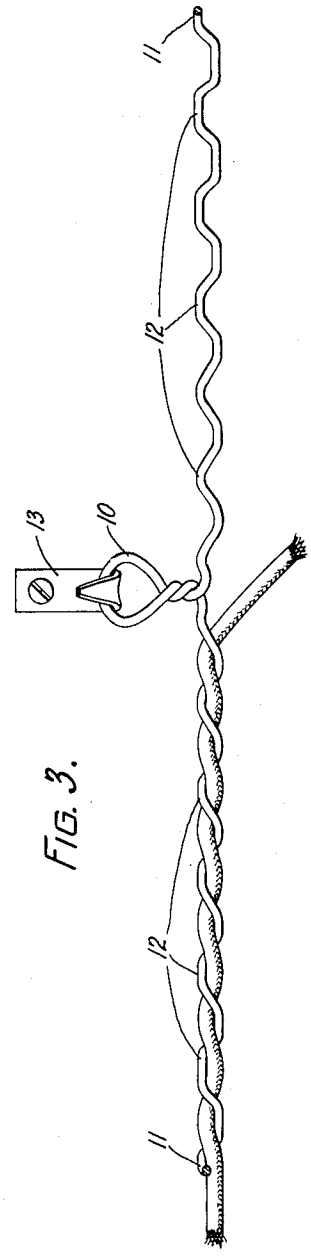


FIG. 3.

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UNITED STATES PATENT OFFICE.

GEORGE N. BYL, OF BLOOMFIELD, NEW JERSEY, ASSIGNOR TO WESTERN ELECTRIC COMPANY, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

DROP-WIRE HANGER.

Application filed March 28, 1928. Serial No. 265,347.

This invention relates to fastening means for securing flexible members to supports and more particularly to a hanger for drop wires.

The object of the invention is to provide an improved hanger for drop wires and the like which will effect economies in the cost of material and in the time required to secure wires.

In accordance with the invention a single piece of heavy wire is formed into an elongated flattened helix, the diameter of the convolutions being greater at one end than they are at the other, thus forming a tapering flattened helix. This novel construction provides a means for equalizing the strain on the spiral hanger when it is in operative position by insuring more friction at the point where the strain is at a minimum and less friction where there is a maximum amount of strain. In other words, at the ring end, where the strain on the wire and hanger is not so great, the turns or convolutions of the hanger have a small diameter and a steep pitch, while at the free end, where the strain is greatest, the convolutions have a large diameter and a gradual pitch.

In one embodiment of the invention described herein a ring formed integral with the hanger is provided at the end having the smaller diameter. This is for the purpose of securing the hanger to its support. In a modification the ring is located at the center of the hanger, the diameter of the helix being the smallest at this point and gradually increasing in opposite directions on each side of the hanger to the free ends of the helix. In the application of this hanger the wire to be fastened is snugly wound around in the turns in the helix until all of the turns of said helix completely surround the wire.

Referring now to Fig. 1, the numeral 1, represents a hanger for drop wires constructed in accordance with the present invention which is rigidly fastened to the support 2, by means of the bolt 3, passing through the ring portion 4. The conductor 5, which is to be secured to the member 1, is wrapped snugly in the convolutions 6 until all of said convolutions are occupied by the conductor 5. The free ends 7 and 8, of the conductor 5, are then ready to be attached to their respective locations.

The hanger 1 as illustrated in Fig. 2 consists of a heavy wire having a substantially circular cross-section formed into a tapered flattened helix a section of which is shown in Fig. 4. The convolutions of said helix gradually increase in diameter until they are of a substantially larger diameter at the free end 9 than they are at the end having the ring portion 4, which is arranged to be fastened to a supporting member.

In the modification shown in Fig. 3 the ring portion 10 is centrally located with respect to the ends 11. The convolutions 12 gradually increase in diameter on both sides of the ring 10 until they are of substantially larger diameter at the free ends 11 than they are at the ring portion 10, which is arranged to be supported by the hooked member 13. This arrangement provides a hanger for supporting a continuous wire at any point along its length.

By virtue of the invention as heretofore described a hanger for drop wires is provided which practically obviates failure due to the personal element in installing; it does not injure the wire; one size holds all types of drop and bridle wires to their full strength without slippage; it is easy to reset when taking up slack; and a continuous length of wire may be supported and secured without cutting and splicing.

It is not desired to limit this invention to the precise details of construction and proportions heretofore set forth as it is obvious that various modifications may be made without departing from the essential features of the invention as defined in the appended claims.

What is claimed is:

1. A hanger comprising a relatively flat elongated tapered helix consisting of a number of turns of heavy wire, the turns of said helix increasing in diameter from one end toward the other, said turns at the smaller end having a relatively steep pitch and the turns at the larger end having a gradual pitch.

2. A hanger comprising a relatively flat elongated tapered helix consisting of a number of turns of heavy wire, means formed at one end for securing said hanger to a support, said turns having a relatively small diameter adjacent the securing means, and progressively increasing in diameter from said securing means in the opposite direction, said turns of small diameter having a

steeper pitch than the turns of larger diameter.

3. A hanger for flexible members comprising a relatively flat elongated helix consisting of a number of turns of heavy wire, securing means on said hanger, said turns, adjacent the securing means having a relatively small diameter and progressively increasing in diameter from said securing means to the free end thereof, said turns of small diameter having a steeper pitch than the turns of larger diameter.

In witness whereof, I hereunto subscribe my name this 26th day of March, 1928.

GEORGE N. BYL.