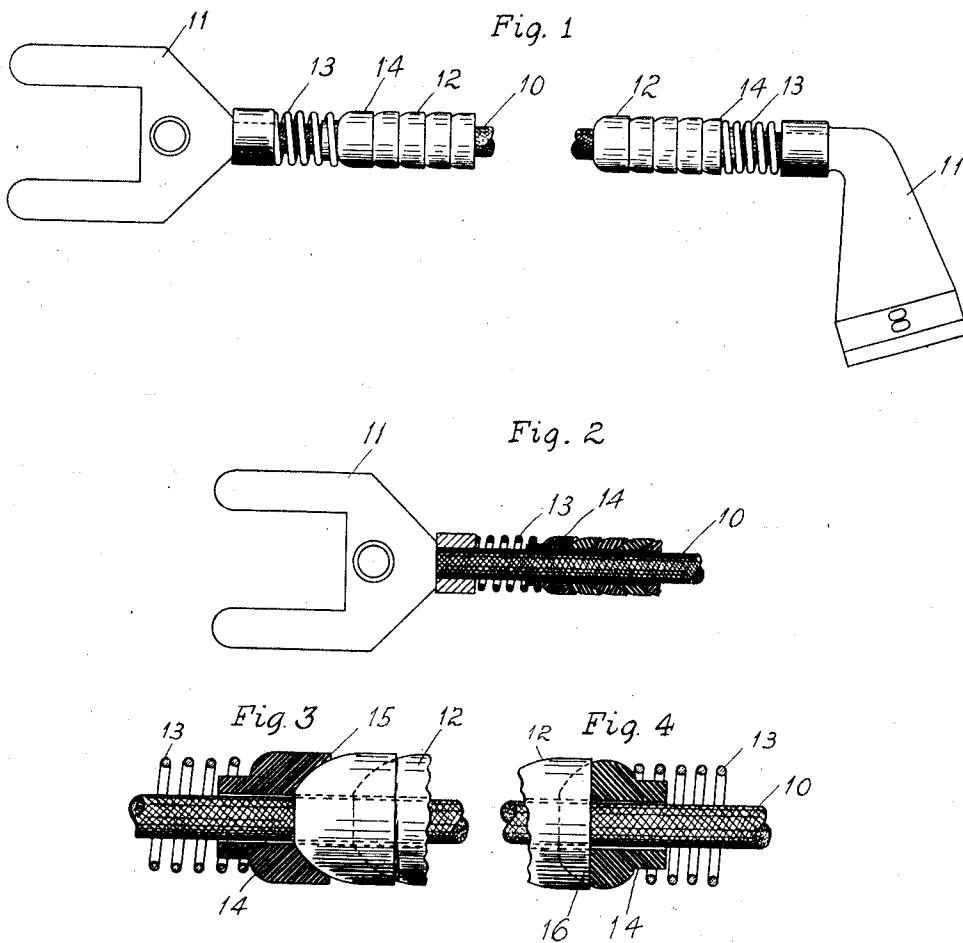


W. L. BLISS.
INSULATED ELECTRIC CONDUCTOR.
APPLICATION FILED MAY 27, 1915.

1,257,669.

Patented Feb. 26, 1918.



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UNITED STATES PATENT OFFICE.

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INSULATED ELECTRIC CONDUCTOR.

1,257,669.

Specification of Letters Patent.

Patented Feb. 26, 1918.

Application filed May 27, 1915. Serial No. 30,726.

To all whom it may concern:

Be it known that I, WILLIAM L. BLISS, a citizen of the United States, residing at Niagara Falls, in the county of Niagara and State of New York, have invented new and useful Improvements in Insulated Electric Conductors, of which the following is a specification.

My invention relates to insulated electric conductors.

An object of the present invention is to provide means for increasing the efficiency of flexible insulation for electric leads.

Other objects of my invention will herein- after appear.

In the drawings:—

Figure 1 is a view of an insulated conductor embodying my invention.

Fig. 2 is a view partly in section of a portion of the construction shown in Fig. 1.

Figs. 3 and 4 are, respectively, a view of a sleeve formed with a convex end, and a view of a sleeve formed with a concave end.

The flexible electric lead 10, illustrated in the drawings, is provided at each end with a suitable terminal 11 and is insulated by a covering formed of a series of concavo-convex interfitting beads 12 strung thereon. The convex portion of each bead fits into the concave portion of the next in the nature of a ball and socket joint, so that when the beads are arranged on the lead they interfit to form a continuous insulating covering therefor.

Improved means are provided for holding the beads in interfitting relation at all times regardless of the manner in which the lead is flexed. This means includes two coil springs 13, one strung on each end of the lead and confined between the adjacent terminal and a sleeve 14 slidably strung on the lead. The end of one of the sleeves 14 is formed with a concavity 15 to receive the rounded end of the adjacent bead; while the end of the other sleeve is formed with a rounded end 16 which fits into the concavity of the adjacent bead.

In assembling the parts a sufficient number of beads 12 to form a continuous covering for the lead 10 are strung thereon; the sleeves 14 are then arranged in place; next, the coil springs 13 are strung on the lead; and lastly, the terminals are secured in

place. The length of the springs 13 is such that when the parts are assembled the springs will be under sufficient compression to force the beads into close contact with one another.

This improved construction will prevent the series of beads from separating, no matter how the lead is bent, and at the same time allow ample flexibility and freedom of motion. Furthermore, any wear on the beads or stretching of the lead will not impair the efficiency of the insulation as the springs will force the beads into contact to take care of such exigencies.

I do not desire to be limited to the particular embodiments of the invention set forth herein, for although I have described my invention in great detail, nevertheless it is obvious that divers changes in form, proportions, arrangements and details may be made without departing from the spirit and scope of the invention as defined in the appended claims.

Having fully and clearly described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In an electric lead, a flexible conductor, a plurality of independent insulating members strung on said conductor, a sleeve slidably arranged on said conductor, a terminal secured to said conductor, and resilient means interposed between said sleeve and said terminal for urging said insulating members into contact with one another.

2. In an electric lead, a flexible conductor, a series of insulating beads forming a covering for said conductor, a sleeve arranged at each end of said series of beads, a terminal secured to each end of said conductor, and resilient means interposed between said sleeves and said terminals for holding said beads in contact with one another.

3. A flexible generator lead comprising an electric conductor, a plurality of interfitting insulating beads strung on said conductor, a sleeve strung on each end of said conductor, a terminal connected to each end of said conductor and springs arranged between said terminals and sleeves for holding said beads in contact.

In witness whereof, I have hereunto subscribed my name.

WILLIAM L. BLISS.