(No Model.)

# T. S. REED.

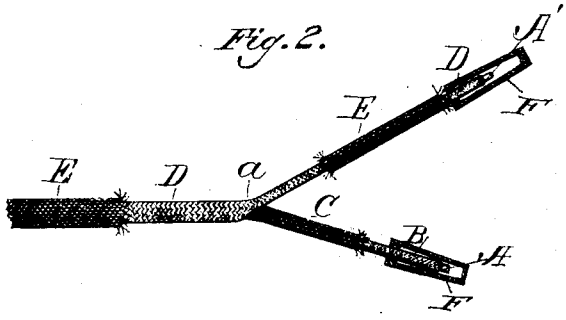
## ELECTRICAL CONDUCTOR.

No. 286,963. Patented Oct. 16, 1883.

*Fig. 1.*




*Fig. 2.*




Witnesses:
W. W. Mortimer.
S. S. Williamson

Inventor:
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by Wooster Smith
Atty's.

N. PETERS. Photo-Lithographer. Washington, D. C.

# UNITED STATES PATENT OFFICE.

THOMAS S. REED, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BRIDGEPORT BRASS COMPANY, OF SAME PLACE.

## ELECTRICAL CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 286,963, dated October 16, 1883.

Application filed May 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS S. REED, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Electrical Conductors; and I do hereby 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.

My invention relates to certain novel and useful improvements in electrical conductors, and has for its object to do away with the insulating of the positive and negative conductors separately, and then confining them by braiding or otherwise, thereby making a double cord; and with these ends in view my invention consists in flexibly arranging and insulating both electrodes around a common center, and providing them with suitable tips at their extremities, as will be hereinafter fully and in detail explained, and then specifically designated by the claims.

In order that those skilled in the art to which my invention appertains may more fully understand its construction and adaptation, I will proceed to describe the same in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 illustrates the several stops in the construction of my improved conductor, and Fig. 2 is a view showing the arrangement and relation of the electrodes where they branch or fork, for the purpose of being connected to the positive and negative poles of any electrical instrument.

Similar letters denote like parts in both figures of the drawings.

A is a flexible core, around which is braided or otherwise arranged conducting material B, preferably tinsel. This tinsel may form either the positive or negative electrode, and is insulated by any suitable flexible material, C, and again around this insulator is braided, or in any suitable way arranged, another layer of tinsel, D, which will form the positive or negative electrode, as the case may be, and the whole is enveloped by an outer flexible covering of insulating material E. It will be seen that an electrical conductor formed in this way will have a high degree of flexibility without decreasing its conductivity.

When it is desired to connect the two electrodes of the conductors with the corresponding poles of an instrument, the inner insulated electrode is continued on, and the outer electrode is braided or suitably arranged around an independent core, A′, and insulated by a continuation of the material E, as will be readily understood by reference to Fig. 2. The electrodes are then provided with ordinary tips, F. I am enabled thereby to provide an electrical conductor exceedingly flexible, which is a great advantage, since the double cords now in use are very stiff, and they invariably twist and become tangled by usage. My improved conductor presents the appearance of a small, round, and neat cord, and is entirely different from the bulky and flat cord now in use.

While I have described the preferable construction of my improved conductor, I do not limit myself to any particular conducting material; also, the core A may be dispensed with, thereby reducing the size of the conductor; also, I am enabled to make my improved conductor triple, quadruple, &c., by simply braiding or arranging the several conductors and insulators in the manner described and providing them with suitable tips, the proper electrodes being distinguished by different colors of insulating material.

I am aware that it is not new, broadly, to arrange the electrodes with proper insulators around a common center, and I do not wish to be understood as laying claim to this construction.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an electrical conductor, a series of flexible strands composing one electrode, braided or otherwise arranged around the insulator of the other electrode, in combination with suitable tips secured to the extremities of the electrodes, substantially as set forth.

2. In an electrical conductor, the electrodes composed of a series of flexible strands of tinsel or similar material arranged around a common center and insulated by any suitable flexible material, in combination with tips secured to the extremities of the electrodes, substantially as set forth.

3. An electrical flexible conductor composed of concentric flexible insulated electrodes provided at their extremities with suitable tips, substantially as set forth.

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

THOMAS S. REED.

Witnesses:
W. W. MORTIMER,
ALFRED B. BEERS.