(No Model.)

R. S. WARING.

ELECTRIC CABLE.

No. 268,157. Patented Nov. 28, 1882.

Fig. 1.

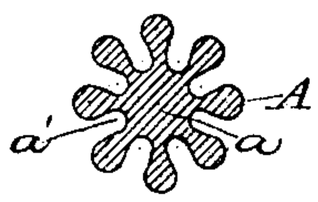


Fig. 2.

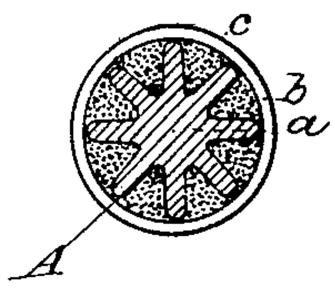


Fig. 3.

Fig. 4.

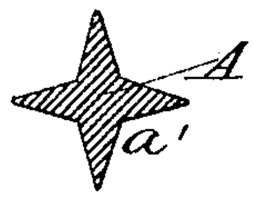
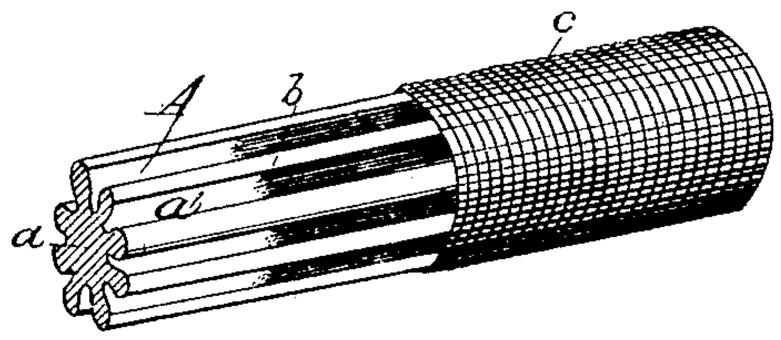


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

RICHARD S. WARING, OF PITTSBURG, PENNSYLVANIA.

ELECTRIC CABLE.

SPECIFICATION forming part of Letters Patent No. 268,157, dated November 28, 1882.

Application filed September 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, RICHARD S. WARING, a citizen of the United States, residing at Pittsburg, Allegheny county, Pennsylvania, have invented certain new and useful Improvements in Insulating Ocean Electric Cables, of which the following is a specification, reference being had therein to the accompanying drawings.

My present invention relates to improvements in the construction of wires or cables for electrical purposes; and it consists in making the wires with a series of longitudinal ribs or wings which rise from and surround a common center, whereby the superficial area of the wires or cables is increased.

In the drawings which form a part of this specification, Figures 1, 3, and 4 are views in cross-section of different forms of wires embraced in my invention before being covered or prepared for use. Fig. 2 is a view in cross-section, as in Fig. 1, with the filling and covering in position, and illustrating in cross-section the complete wire or cable. Fig. 5 is a view in perspective, showing a portion of the conductor complete and ready for use and another portion in an unfinished condition.

A indicates the wire or cable, which consists of a main or central portion, *a''*, of any desirable or suitable form, from and around which the ribs, fins, or projections radiate, thus forming cavities *a'* for receiving and holding fibrous material or an insulating compound. As first intimated, the cavities *a'* are filled with thread or strands of fibrous material *b*, which are closely packed therein and held in position by the external wrapper, *c*. The external wrapper may consist of cotton thread, braided fabric, or strips of woven material. After the fibrous strands or threads have been dried and coated with any suitable insulating compound a lead or other suitable flexible material may be used for the external covering or wrapper. The wires, when covered with the fibrous material, are freed from all moisture by the application of heat or otherwise, and then coated with an insulating compound of any suitable kind.

It will be apparent to those skilled in the art that wires of this construction possess superior conducting qualities for electrical purposes over the ordinary round wire.

In drawing the wires it will be found convenient to work from a wire circular in cross-section, and it should be drawn through a series of plates in the usual way, with cavities therein, for forming the wings or longitudinal ribs on the wire; but for some forms of wire it may be advantageous to form the ribs thereon by rolling.

I am aware that corrugated wires have been before used, and such do not broadly claim.

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

An electric conductor consisting of a wire or metallic body formed with a series of longitudinal ribs or pins radiating from a central core or body, the space between said ribs being filled with threads or strands of fibrous material laid longitudinally in the grooves, and a sewing of fibrous material, as described, to hold the first-mentioned insulator within the recesses between the ribs, the whole fibrous coating being saturated with insulating material, and an outer covering or casing, as set forth.

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

RICHARD S. WARING.

Witnesses:

B. F. MORSELL,

O. E. DUFFY.