No. 702,725. Patented June 17, 1902.

H. & E. HAMMESFAHR.

ELECTRIC CONDUCTING WIRE.

(Application filed Feb. 28, 1902.)

(No Model.)

Fig: 1.

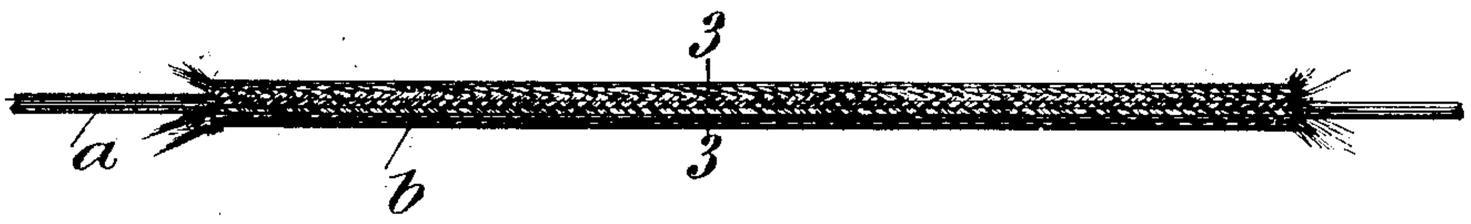


Fig: 2.

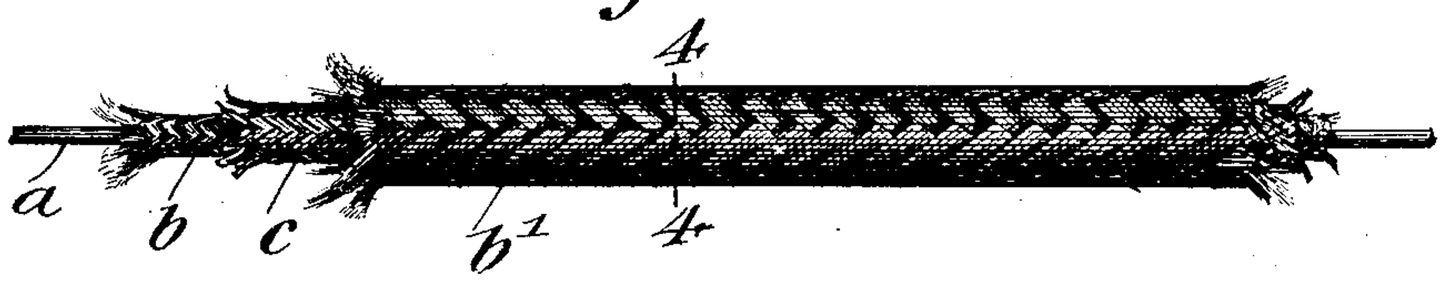
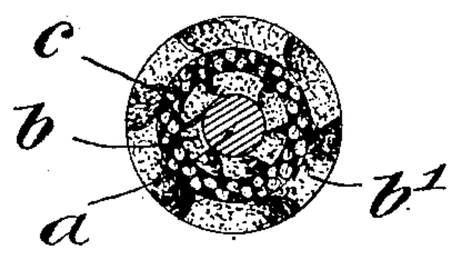


Fig: 3.

Fig: 4.



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ELECTRIC CONDUCTING-WIRE.

SPECIFICATION forming part of Letters Patent No. 702,725, dated June 17, 1902.

Application filed February 28, 1902. Serial No. 96,166. (No model.)

To all whom it may concern:

Be it known that we, HERMANN HAMMESFAHR and ERNEST HAMMESFAHR, citizens of the United States, residing in New York, borough of Brooklyn, and State of New York, have invented certain new and useful Improvements in Electric Conducting-Wires, of which the following is a specification.

This invention relates to certain improvements in electric wires of that class which are insulated in such a manner that an effective protection against fire is obtained, so that the wires can be applied without requiring any additional safeguards against fire. For this purpose the invention consists of an electric insulated wire provided with a covering layer formed of strands of filaments of spun glass braided on the same, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of a piece of our improved insulated electric wire covered with one layer of braided spun glass. Fig. 2 is a side elevation of another wire covered with two layers of spun glass and an intermediate layer of braided cotton or other threads; and Figs. 3 and 4 are respectively vertical transverse sections on line 3 3, Fig. 1, and 4 4, Fig. 2, drawn on a larger scale.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, *a* represents an electric conducting-wire, and *b* a braided layer of spun glass—that is to say, a layer the strands of which are formed of a number of filaments of spun glass that are braided on the wire *a* by a braiding-machine in the same manner as other braided layers. In most cases one braided layer of spun glass is sufficient to protect the wire and prevent danger of fire. In some cases, however, several layers *b b'* of spun glass may be used interiorly and exteriorly, as shown in Fig. 2, in which case the interior and exterior layers are separated by an intermediate layer of braided cotton threads *c*, as shown in Fig. 2.

It is preferable to give the covering layer of spun glass a coat of suitable varnish, so as to protect the thin filaments of spun glass, especially when laying the wires.

The covering-braids of spun glass form a reliable insulation for the wire and prevent any danger of fire, they being even a protection to the wire, as even in the case of fire the covering of the wire cannot be burned even when exposed to the heat of the fire, as the glass covering forms a vitrified glaze around the wire. The electric wires insulated by a spun and braided glass covering form a suitable protection against danger of fire by ignition due to the electric current and can be used without requiring any further additional protecting media.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. An insulated electric conductor, consisting of a wire, and a covering layer formed of strands of filaments consisting solely of spun glass braided on said wire, substantially as set forth.

2. An insulated electric conductor, consisting of a wire, a plurality of covering layers formed of strands of filaments consisting solely of spun glass braided on the same, and intermediate braided layers of textile threads, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

HERMANN HAMMESFAHR.
ERNEST HAMMESFAHR.

Witnesses:
PAUL GOEPEL,
HENRY SUHRBIER.