

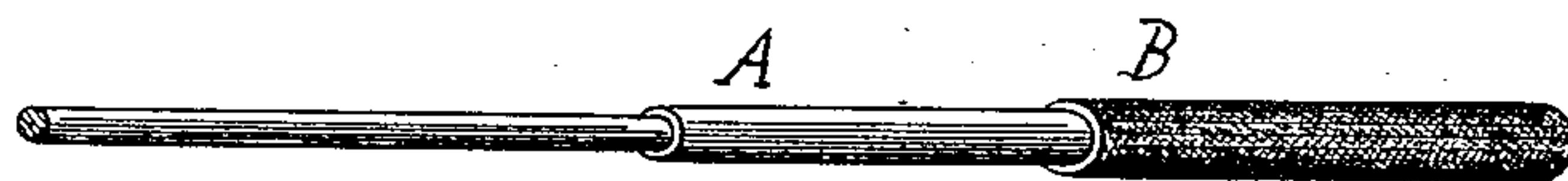
(No Model.)

E. CLARK.

ELECTRICAL CONDUCTOR.

No. 333,110.

Patented Dec. 29, 1885.



Attest:
John G. Hinkel
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atys

UNITED STATES PATENT OFFICE.

EDWARD CLARK, OF NEWBURG, NEW YORK.

ELECTRICAL CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 333,110, dated December 29, 1885.

Application filed April 25, 1885. Serial No. 163,481. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CLARK, a citizen of the United States, residing at Newburg, in the county of Orange and State of New York, have invented certain new and useful Improvements in Electrical Conductors, of which the following is a specification.

My invention relates to that class of electric conductors in which the conducting-wire is surrounded by a coating or envelope of non-conducting or insulating material; and my invention consists in providing the said conducting-wire with an insulating-coating consisting of emery, in connection with a suitable binding agent, with or without the addition of other material.

The accompanying drawing shows a wire covered with my improved insulating material A, and with an exterior protecting-coating, B.

In the manufacture of my improved conductor I first prefer to cleanse the wire of scale, oil, or other foreign matter which may be upon the surface, either by friction, scraping, or subjecting it to the action of suitable cleansing-liquid. I then apply to the wire the composition in a soft or pasty condition, which composition will adhere firmly to the freshly-exposed surface, and will remain in close contact therewith, as set forth in the application for Letters Patent of Clark and Richards, filed March 30, 1885, Serial No. 160,671.

In preparing the composition prior to applying it to the wire the emery in a finely-powdered condition is mixed with a suitable binding ingredient—as, for instance, any suitable gum or paste composition. I prefer, however, to use bitumen or asphalt, which is melted by heat and the emery worked there-
with until the two are thoroughly intermingled, with as great a proportion of emery as possible, to secure a mixture which will on hardening be pliable enough to bend with the wire without being fractured and detached.

After a coating has been applied to the wire it may be covered with an envelope of fibrous

strands, braided or otherwise applied; but this may be covered by a second braiding of the same or other material. In some instances rubber or sulphur may be added to the emery composition, or may be used with the emery in the place of asphalt.

One composition which will be found effective consists of emery, eleven ounces; rubber, eight ounces; asphalt, two pounds eleven ounces.

Another composition I have used consists of emery, ten pounds; rubber, three pounds; tar or asphalt, one and one-half ounce; sulphur, three ounces. This composition may be vulcanized after it is applied to the wire.

While I have mentioned the above substances as illustrations of those which may be used in connection with the emery, I do not limit myself to the use of any special binding ingredient or composition.

I do not herein claim the use of corundum as an insulator, that being embraced in my application 166,012; but

I claim—

1. An electrical conductor consisting of a wire provided with an insulating-coating composed of emery and a binding material, substantially as set forth.

2. An electrical conductor consisting of a wire provided with an insulating-coating composed of emery and a binding material, the said coating being vulcanized on the wire, substantially as set forth.

3. An electrical conductor consisting of a wire provided with an insulating-coating consisting of emery, rubber, tar or asphalt, and sulphur, substantially in the proportions set forth, vulcanized on the wire.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD CLARK.

Witnesses:

J. SCHÜLLINGER,
E. J. CLARK.