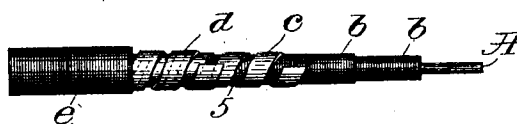


(No Model.)

C. E. JACKSON.
METALLIC CIRCUIT CABLE.

No. 476,464.

Patented June 7, 1892.



Witnesses:
Edward F. Allen.
Louis N. Howell

Inventor:
Charles E. Jackson
by Lemby Gregory attys.

UNITED STATES PATENT OFFICE.

CHARLES E. JACKSON, OF BOSTON, MASSACHUSETTS.

METALLIC-CIRCUIT CABLE.

SPECIFICATION forming part of Letters Patent No. 476,464, dated June 7, 1892.

Application filed November 12, 1891. Serial No. 411,702. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. JACKSON, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Metallic Circuits, of which the following description, in connection with the accompanying drawing, is a specification, like letters and figures on the drawing representing like parts.

This invention has for its object to provide an improved metallic circuit.

In accordance with this invention a metallic conducting-wire is covered with one or more layers of insulation, about which are wound spirally two preferably-flat conducting-strips, one of which is wound over and to cover the space between the spiral turns of the other strip, the whole being preferably covered with an insulating substance.

One part of the invention therefore consists in the combination, with an insulated conductor, of two metal strips wound spirally about the same, one of the said strips being wound over and upon and to cover the space between the turns of the other of said strips, the successive convolutions of each strip being separated, substantially as will be described.

The drawing represents a conductor embodying this invention.

A represents a conductor covered with one or more layers or windings of insulation *b b*, about which is wound spirally the strip *c*. A second strip *d* is wound spirally over and upon the said strip *c* and to cover the space *δ* between the successive spiral windings or turns of the said strip *c*, so that a current of electricity sent over the strip *c* will not be compelled to follow the spiral turns thereof, which necessarily increase the resistance, but may

pass from one turn to the other through the outer strip *d*, and thus pass in a substantially direct or straight line along the conductor. An outer coating of insulation *e* is also preferably provided, as shown. If the outer coating of insulation *e* should be injured or destroyed at any point by reason of the conductor chafing against a building or tree, the insulation *b*, which separates the inner conductor A from the outer strips *c d*, will still be preserved from injury by the overlapping windings of the said outer strips, which effectually exclude all air and moisture from the insulation beneath. Should it not be desired to utilize the spirally-wound strips *c d* as conductors, they may be employed with advantage as a flexible metallic armor for the conductor A to protect the latter and to prevent abrasion, to which insulated conductors are subject, and to this end the said armor-strips are adapted for use in connection with underground and submarine cables and the like.

I claim—

The combination, with an insulated conductor, of two metallic strips wound spirally about the same, one of said strips being wound over and upon and to cover the space between the turns of the other of said strips, the successive convolutions of each strip being separated, substantially as described.

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

CHARLES E. JACKSON.

Witnesses:

FREDERICK L. EMERY,
EMMA J. BENNETT,