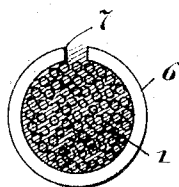
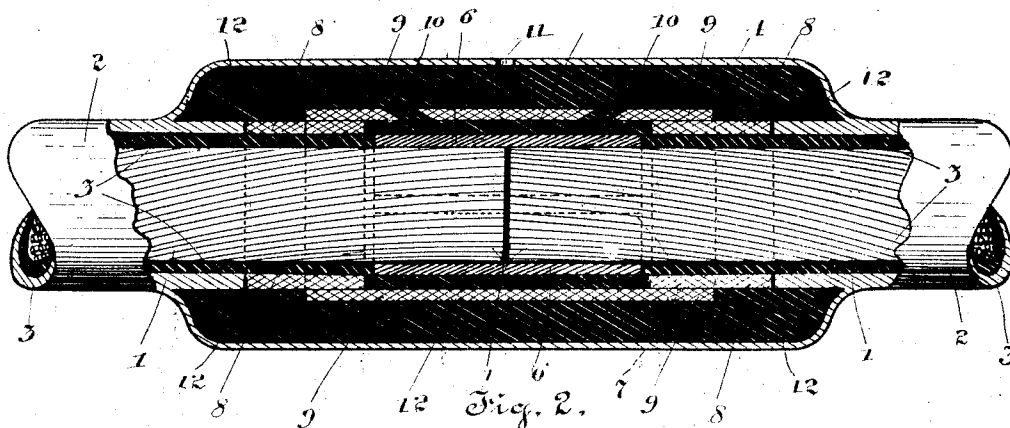
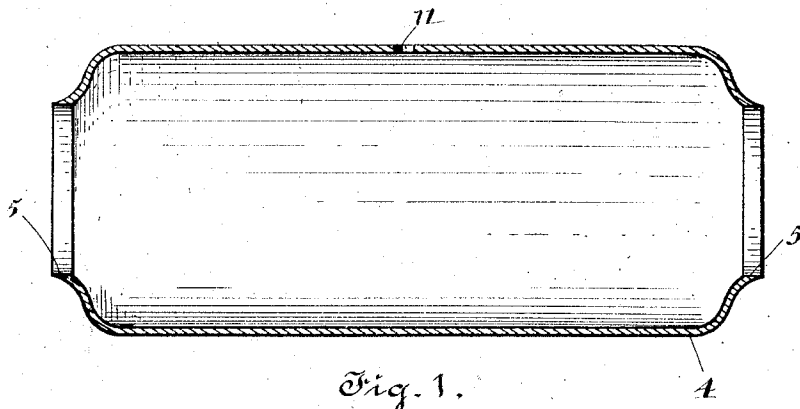


W. O. WILSON.
ELECTRIC CABLE JOINT.
APPLICATION FILED AUG. 16, 1909.

975,592.

Patented Nov. 15, 1910.



Witnesses:

W. E. Smith
B. G. Richards

Fig. 3.

Inventor:

Wilbur O. Wilson,
By Joshua R. H. Potts
his Attorney.

UNITED STATES PATENT OFFICE.

WILBUR O. WILSON, OF CHICAGO, ILLINOIS.

ELECTRIC-CABLE JOINT.

975,592.

Specification of Letters Patent.

Patented Nov. 15, 1910.

Application filed August 16, 1909. Serial No. 513,097.

To all whom it may concern:

Be it known that I, WILBUR O. WILSON, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Electric-Cable Joints, of which the following is a specification.

My invention relates to improvements in electric cable joints, the object of the invention being to provide simple and inexpensive means whereby a joint of this character may be constructed in an expeditious manner.

A further object of my invention is to so construct the joint that no air space remains in the same; thus obviating the production of induced currents.

Other objects will appear hereinafter.

With these objects in view my invention consists in the novel construction and arrangement of parts which will be hereinafter fully described and more particularly pointed out in the appended claim.

My invention will be more readily understood by reference to the accompanying drawing forming a part of this specification, and in which.

Figure 1 is a central longitudinal section of the lead jacket of my improved cable joint, Fig. 2 is a central longitudinal section of the completed joint, and Fig. 3 is a transverse section of the wire strand electric conductor of the cable showing the end of a copper sleeve used in making the joint.

Referring now to the drawings, 1 designates the contiguous ends of an electric cable and 2 the lead covering thereof. Before the ends 1 are thus brought together the lead covering 2 and the insulation 3 are cut away as shown in Fig. 2. Then the lead jacket 4 having the reduced ends 5 is placed over one of the ends of a cable and moved back a distance therefrom. A copper sleeve 6 having a longitudinal opening 7 is now placed over the ends 2, said opening being provided to admit molten solder which is poured into the same and sweated into the interstices around and between the ends of the wires, thus forming a solid mass of metal which allows the current to flow with the least possible resistance. Prior to making this soldered connection paper sleeves 8 are placed over the insulation 3, and a paper sleeve 9

is placed temporarily over the lead covering 2 ready to be moved into proper position after the soldering operation is performed.

When the sleeve 9 is moved into the position as shown in Fig. 2 the same overlaps the sleeves 8 and it is apparent that a continuous insulation is formed comprising the insulation 3 and the paper sleeves 8 and 9. The jacket 4 is now moved into position as shown in Fig. 2, when the reduced ends 5 thereof are compressed into engagement with the lead coverings 2 and soldered thereto by means of a wiped joint or otherwise. Apertures 10 are formed in the sleeve 9 and a single aperture 11 is formed in the jacket 4. Molten paraffin 12 is poured through the aperture 11 thus filling the annular space around the copper sleeve 6. This latter construction is desirable since harmful induced currents might be generated if there was an air space around the sleeve 6. A joint having an efficient insulation is thus formed, the effect of the paraffin besides acting as an efficient insulator being also adapted to keep the paper insulating sleeves absolutely dry. The joint is completed by sealing the aperture 11 with solder.

It will be noted that the sleeves are all cylindrical and symmetrical in form, hence the same are readily manufactured and easily assembled in the joint. The lead jacket is also of the simplest possible form, the ends thereof being formed cold in a piece of lead tubing.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claim.

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

In a joint of the class described, two cables each having an electric conductor and an insulation therefor, lead coverings for the insulation of the cables, a lead jacket having reduced ends soldered to said lead coverings, a copper sleeve inclosing the ends of the conductors and soldered thereto, a

layer of paraffin surrounding said copper sleeve, paper sleeves surrounding the ends of said insulation, a paper sleeve surrounding said layer of paraffin and a portion of said paper sleeves, said paper sleeve being provided with apertures through which said paraffin is adapted to flow when in a molten condition and a filling of paraffin in the annular space between the walls of said paper

sleeve and the walls of said jacket, substantially as described.

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

WILBUR O. WILSON.

Witnesses:

HELEN F. LILLIS,
JOSHUA R. H. POTTS.