

No. 681,470.

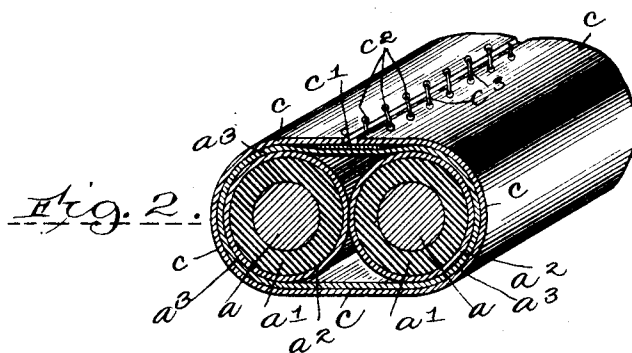
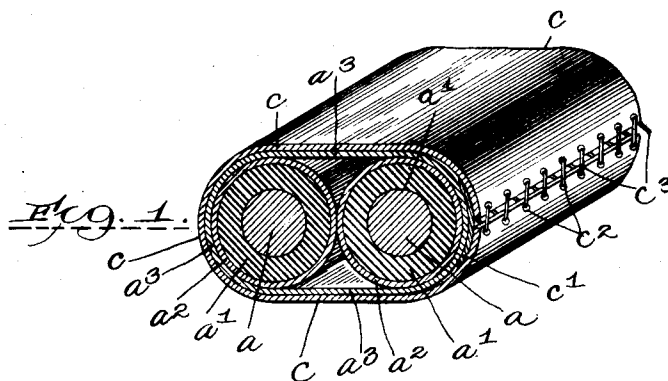
Patented Aug. 27, 1901.

J. WOLFF.

REMOVABLE JACKET FOR ELECTRIC CABLES.

(Application filed Aug. 24, 1900.)

(No Model.)



Witnesses:

Raz White.
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UNITED STATES PATENT OFFICE.

JAMES WOLFF, OF CHICAGO, ILLINOIS.

REMOVABLE JACKET FOR ELECTRIC CABLES.

SPECIFICATION forming part of Letters Patent No. 681,470, dated August 27, 1901.

Application filed August 24, 1900. Serial No. 27,931. (No model.)

To all whom it may concern:

Be it known that I, JAMES WOLFF, a citizen of the United States, residing in Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Removable Jackets for Electric Cables; and I do hereby declare the following to be a full, clear, and exact description, such as will enable persons skilled in the art to which it

appertains to make and use the same.

My invention relates to a means for mechanically protecting electric conducting cables.

The object of my invention is to provide a removable jacket which may be placed upon the outside of an electric cable to protect the same against abrasion and other mechanical injury and against the effect of water and acid, which would otherwise soak into the braided serving usually placed by the manufacturers on the cable and cause the latter to decay and otherwise produce a deterioration of the structure. Electric cables when used in coal-mines and similar places are subject to very severe uses in practical service. They are frequently placed in the mud and water and oftentimes are tramped upon by the miners and the mules and when being handled are drawn around sharp corners of the supporting walls or ledges of the mines and otherwise generally mistreated. To guard against these difficulties, I provide a removable jacket made of a waterproof material and tough in its resisting nature and which will withstand all the abuses to which a cable used for this purpose is subjected. I arrange this jacket so that it may be easily applied to the cable and removed for the purpose of repair or for any purpose—as, for instance, when the cable has been worn out the jacket may be used upon another cable. I have found from experience that the braided serving usually placed by manufacturers around the cable at the time of its manufacture is not sufficient to withstand the severe mechanical abuse to which the cable is subjected, and for this reason I prefer my removable jacket and inclose the cable therein as an auxiliary protecting-sheath composed, by preference, of a woven fabric instead of a braided material.

In the drawings, Figure 1 represents a section of an ordinary duplex cable with my improved jacket placed around the said cable

and showing one manner of lacing the same for holding it in position on the said cable. Fig. 2 is a similar view showing the jacket laced at a place intermediate of the two cables.

In both of the views the same letters of reference indicate similar parts.

The copper wire is represented by *a*.

a' is the insulation which surrounds the said wire.

a² is a braided serving usually placed around each individual cable by the manufacturers.

a³ is a serving that is placed around both cables for the purpose of holding them together.

c is my new improved jacket.

c' is a tongue attached to the jacket for the purpose of protecting the serving and insulation at the place where the jacket is laced or otherwise joined. *c²* indicates a series of eyelet-holes made into the longitudinal edge of the said jacket for the purpose of lacing the same.

c³ is a string or lace used for lacing the cable. It may be sewed instead of laced, if desired.

I make the jacket of a flexible tough material that is also waterproof and has the capacity to withstand hard usage and wear. I have found that canvas when properly treated makes a very good jacket for this purpose. In preparing the jacket I make it of the proper width to surround the cable and to be conveniently laced or otherwise joined, allowing for shrinkage, and then fill the pores of the jacket with a material, such as boiled linseed-oil, which renders it water and acid proof and which also adds to its toughness and preserves it from decay. When the jacket has been properly prepared, it is flexible, waterproof, and durable and will preserve the cable for a much longer time than when the cable is used without such a jacket. Should the cable become electrically damaged, the jacket may be easily removed for repairs, or the jacket may be entirely removed and placed over a new cable, or it may be removed and re-treated and replaced, so that by this means the cable is protected from the usual wear and preserved from decay, which soon destroys cables that are used in such service without the jacket.

It is not possible for the manufacturers to make a covering or protection for the cable by braiding a serving at the time they produce the cable which has the same qualities and nature of the jacket which I prepare, which for convenience I make removable.

The woven fabric of which my jacket is constructed is much more durable, can be made more liquid-resisting, and is better adapted to preserve the cable than any braided serving that can be made and applied in the usual way by being braided thereon and then painted.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A removable jacket for an electric cable, comprising a waterproof covering fastened at its edges and provided with a tongue

bridging the joint between said edges, substantially as set forth.

2. A removable jacket for an electric cable, comprising a covering of a woven fabric, having its pores filled with an elastic, waterproof composition, said covering surrounding said cable and joined at its edges and provided with a tongue bridging the joints between the said edges, substantially as set forth.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 21st day of August, A. D. 1900.

JAMES WOLFF.

Witnesses:

FORÉE BAIN,
M. F. ALLEN.