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DEVICE FOR ELECTRICALLY SPLICING WIRES

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Fig. 1.

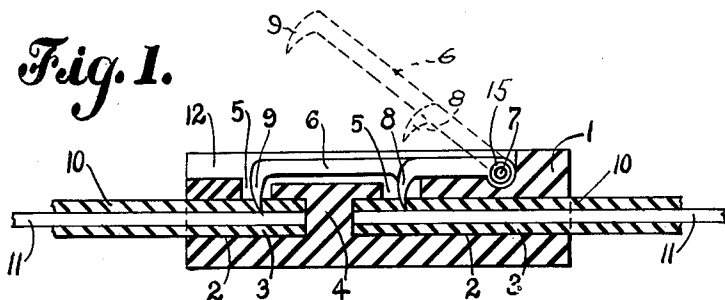


Fig. 2.

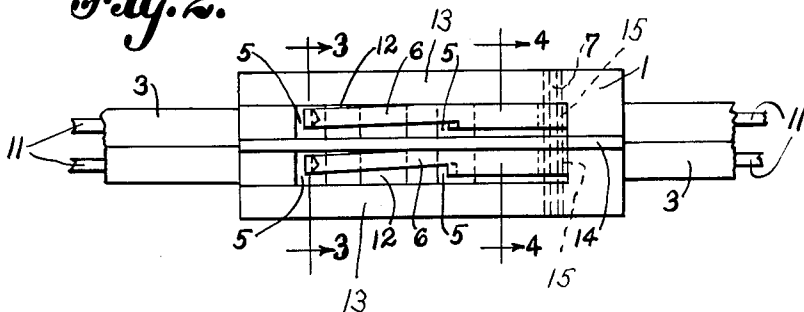


Fig. 3.

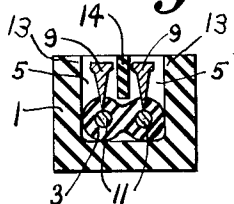
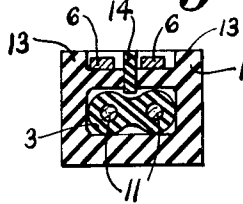


Fig. 4.



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DEVICE FOR ELECTRICALLY SPLICING WIRES

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2 Claims. (Cl. 173-340)

1

This invention relates to a device for electrically splicing or connecting the ends of two insulated covered wires, and an object of the invention is to provide a device for this purpose which is simple in construction and by means of which two ends of insulated wires can be quickly and effectively connected or spliced electrically.

In order to give an understanding of my invention I have illustrated a selected embodiment in the accompanying drawings, in which,

Fig. 1 is a longitudinal sectional view of a device embodying my invention;

Fig. 2 is a plan view;

Fig. 3 is a section on the line 3-3 Fig. 1;

Fig. 4 is a section on the line 4-4 Fig. 1.

The device herein illustrated comprises a sleeve member 1 of insulating material which is provided at each end with a wire-receiving recess 2, said recesses extending longitudinally of the sleeve and each being of a size to receive the end 3 of an insulated covered wire. The two recesses 2 are separated by the partition portion 4 of the sleeve and the inner ends of the recesses are thus spaced from each other and entirely closed to each other by the material of the sleeve member.

Each recess 2 is formed with a lateral opening 5 which extends to the exterior of the sleeve.

Pivotally mounted on the sleeve is a contact member 6 of conducting material, said member being shown as pivotally secured to the sleeve member 1 at 7. The contact member 6 is formed with two laterally extending contact fingers 8 and 9, each finger preferably having a pointed end.

The contact member is swingable about its pivotal connection 7 from an open inoperative position, shown in dotted lines, to a closed operative position, shown in full lines, and the contact fingers 8 and 9 are so positioned that when the contact member is swung into its closed operative position said fingers 8 and 9 will pass through the openings 5. The contact fingers are of sufficient length so that when the contact member has been moved into its operative position said fingers penetrate the insulating covering 10 of the wires and contact with the wire core 11 thereof as best seen in Fig. 1. By this means the wire cores of the two insulated wires are electrically connected.

The sleeve 1 is shown as having a longitudinally extending depression or groove 12 in its upper face in which the contact member 6 is received when it is in its operative position, said contact member at this time being confined between the side walls 13 of said depression 12.

2

The device may be used for splicing or electrically connecting the ends of two insulated covered wires each of which has a single wire core, or it may be used for electrically connecting the ends of two double wires, that is, a wire structure having two wire cores insulated from each other. For this purpose the recesses 2, which are formed in the sleeve 1, have the proper cross sectional shape to receive the end of an insulated wire 3 having two wire cores 11, and the device will be provided with two contact members 6 arranged side by side, the depression 12 being of a size to receive both contact members. The two contact members are insulated from each other by means of a central partition 14 of insulating material, and the sleeve is provided with two pairs of lateral openings 5, one pair being situated on one side of the partition 14 and located over one of the cores 11, and the other being located on the other side of said partition and positioned over the other core 11. Pivot 7 is surrounded by insulating sleeve 15.

When the two wire ends are inserted into the recesses 2 and the two contact members are swung into their operative position, one contact member will electrically connect one core 11 of one wire end to the corresponding core 11 of the other wire end, while the other contact member will connect electrically the other two corresponding wire cores, and thereby the wires will be electrically spliced.

I claim:

1. A device for electrically splicing insulated wire comprising a sleeve member of insulating material having a wire-receiving recess extending longitudinally thereof from each end, the inner ends of the recesses being spaced from each other and entirely closed to each other by material of the sleeve member, said sleeve member being formed with an exterior longitudinally extending groove and having two openings, one of which connects said groove with the inner end portion of one recess and the other of which connects said groove with the inner end portion of the other recess, a contact member of conducting material pivotally mounted at one end in said groove and adapted to swing about its pivot between a closed operative position in which it is entirely received in said groove and an open inoperative position, said contact member having two laterally extended pointed contact fingers which are located at different points along its length and which are so positioned that when the contact member is in closed position one finger extends through one opening into one

3

recess and the other finger extends through the other opening into the other recess, said fingers, when the contact member is in closed position, penetrating through the insulation of insulated wire ends occupying said recesses.

2. A device for electrically splicing insulated wire comprising a sleeve member of insulating material having a wire-receiving recess extending longitudinally thereof from each end, each recess having a shape to receive the end of an insulated wire having two metallic cores, said sleeve member having two exterior longitudinally extending grooves and having two openings for each groove, one opening of each groove connecting the latter with the inner end portion of one recess and the other opening of each groove connecting the latter with the inner end portion of the other recess, an elongated contact member pivotally mounted in each groove, each contact member being adapted to swing between its closed operative position in which it is entirely received in its groove and an open inoperative position, each contact member having two laterally ex-

4

tending pointed contact fingers which are located at different points along its length, the contact fingers of each contact member being so positioned that when the contact member is in closed position one finger extends through one of the corresponding openings into the corresponding recess and the other finger extends through the other opening into its recess, said fingers being of sufficient length so that when the contact members are in operative closed position the pointed ends of the fingers penetrate the insulation of insulated wire occupying the recesses.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,103,749	Finkelstein	July 14, 1914
1,977,677	Hill	Oct. 23, 1934
2,316,267	McLarn	Apr. 13, 1943