Dec. 23, 1941. F. J. WEILAND 2,267,630

ELECTRIC WIRE SPLICE

Filed June 19, 1940

Fig. 1.

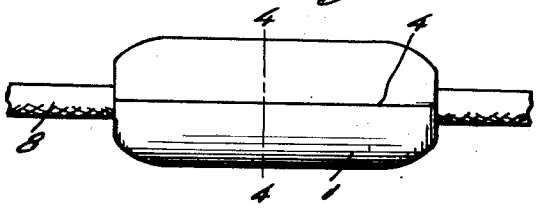

Fig. 3.

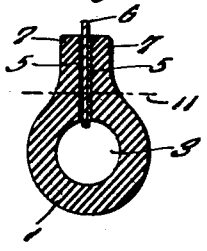

Fig. 2.

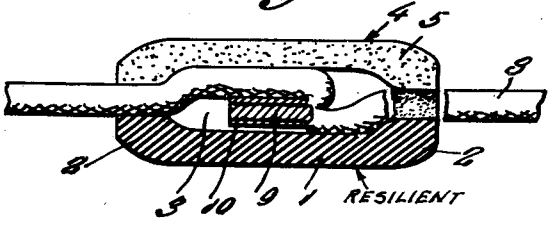

Fig. 4.

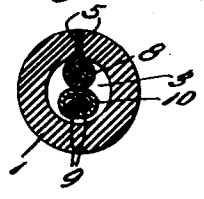

Fig. 5.

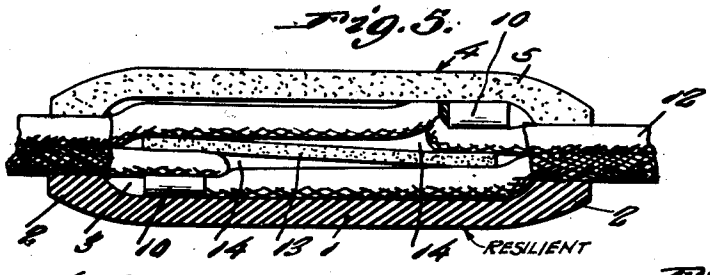

Fig. 6.

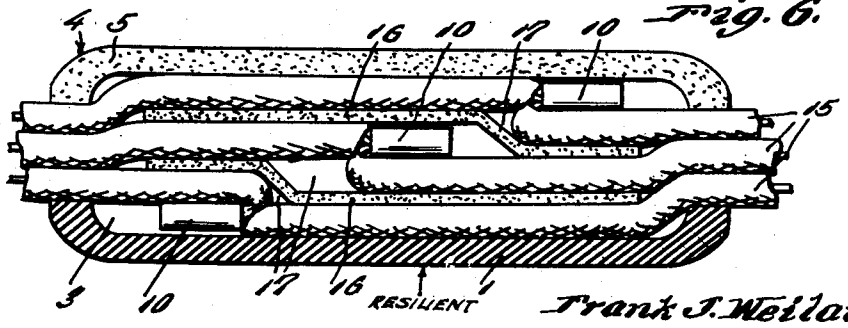

Fig. 7.

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ELECTRIC WIRE SPLICE

Frank J. Weiland, Chicago, Ill.

Application June 19, 1940, Serial No. 341,377

1 Claim. (Cl. 174—5)

The present invention relates to new and useful improvements in splices for electric wires and has for its primary object to provide, in a manner as hereinafter set forth, novel means for covering and insulating the connection or joint in a neat, expeditious manner.

Other objects of the invention are to provide an electric wire splice which will be comparatively simple, strong, durable and which may be produced at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a top plan view of an embodiment of my wire splice.

Figure 2 is a view in vertical longitudinal section therethrough.

Figure 3 is a cross sectional view through the sleeve before it is applied.

Figure 4 is a cross sectional view, taken substantially on the line 4—4 of Fig. 1.

Figure 5 is a view in vertical longitudinal section through another form of the device.

Figure 6 is a view in vertical longitudinal section through a second modification.

Figure 7 is a detail view in perspective of one of the metallic wire connecting tubes.

Referring now to the drawing in detail, and to Figs. 1 to 4, inclusive, thereof in particular, it will be seen that the reference numeral 1 designates a sleeve of flexible rubber having reduced end portions 2. The sleeve 1 is thus formed to provide a chamber 3.

Formed longitudinally in the sleeve 1 is a slit 4 which extends a substantial distance across the ends of said sleeve. The opposed walls of the slit 4 are provided with a suitable adhesive 5. Before the device is applied, the gum or adhesive 5 on the walls of the slit 4 is prevented from sticking together by a removable tape 6 of suitable material placed therebetween. Protruding from the sleeve 1 along the longitudinal walls of the slit 4 are integral lips 7.

The sleeve 1 is for the reception of the end portions 8 of an electric conductor to be connected. In making the splice the end portions 8 are skinned of the usual insulation and twisted together, as at 9. A metallic tube 10 is then slipped over and squeezed on the twisted end portions 9 of the conductor and bent back parallel with one of said end portions, as clearly seen in Fig. 2 of the drawing. The protective tape 6 is removed and the sleeve 1 is mounted on the joint or connection in a manner to enclose same, the slit 4 permitting the conductor to be readily inserted in said sleeve. Of course, the chamber 3 accommodates the joint or splice. The gummed walls of the slit 4 are then pressed together and adhesively secured for closing the sleeve 1 and sealing the end portions thereof around the conductor 8. After the sleeve has been sealed the excess portions of the lips 7 may be cut off approximately on the line 11, for example.

The embodiment of the invention shown in Fig. 5 of the drawing is for a conductor 12 of the type including two wires. Toward this end, the chamber 3 of the sleeve 1 has formed therein a substantially diagonally extending partition 13 in the form of ribs projecting from the side walls of the sleeve 1. The partition 13 divides the chamber 3 into compartments 14. Each of the compartments 14 accommodates one of the wires of the conductor 12. The end portions of these wires are twisted together and the tubes 10 applied thereto, after which the sleeve 1 is slipped over the joint or connection and closed. It will be observed that the wires of the conductor 12 are connected at longitudinally spaced points whereby the connections will be disposed in the large end portions of the compartments 14 at the end portions of the substantially diagonal partition 13.

The embodiment illustrated in Fig. 6 of the drawing is adapted to accommodate three single wire conductors 15. In this embodiment, the sleeve 1 is provided with a pair of angular longitudinally extending, spaced partitions 16 dividing the chamber 3 into three compartments 17. Of course, the compartments 17 accommodate the connected ends of the conductors 15 and insulate them from each other. The construction and arrangement of the angular partitions 16 is such as to provide the compartments 17 with enlarged portions at spaced points in the sleeve 1 for accommodating the connections or joints of the conductors 15.

It will be observed that the opposed faces of the pairs of ribs constituting the partitions 13 and 16 are also provided with the adhesive 5. Further, in these embodiments the tape 6 is to extend between all of the opposed surfaces having the adhesive thereon to prevent them from sticking together before the sleeves are used.

It is believed that the many advantages of an electric wire splice constructed in accordance with the present invention will be readily under-

stood and although preferred embodiments are as illustrated and described, it is to be understood that further modifications and changes in the details of construction may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

A splicing sleeve of flexible rubber and slit longitudinally from one end to the other thereof to provide opposed edge surfaces each of which has an adhesive coating for coaction in adhesively joining said surfaces together when brought into direct facial contact and thereby seal said slit, said coated edge surfaces being normally separated by an interposed strip of adhesive-repellent material subject to quick removal from between said edge surfaces, and said sleeve in the region of said edge surfaces and at opposite sides of said slit having integral quickly severable lips to facilitate the spreading of said edge surfaces apart and the placing of said edge surfaces in facial contact.

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