March 4, 1924. 1,485,994

M. B. SALISBURY

PROTECTIVE INSULATING SLEEVE

Filed Dec. 21, 1922

Fig. 1.

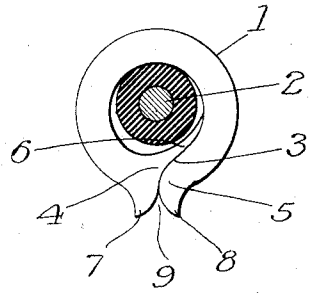


Fig. 2.

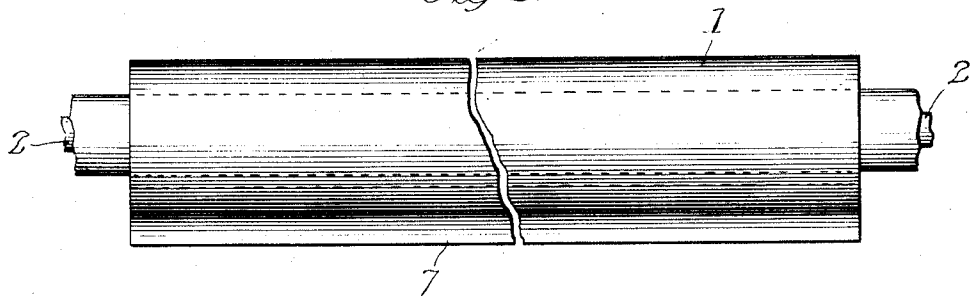
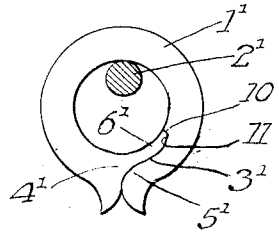


Fig. 3.



Witness
Martin H. Olsen.

Inventor
Moses B. Salisbury
By Chas. E. Wallace
Atty.

Patented Mar. 4, 1924. 1,485,994

UNITED STATES PATENT OFFICE.

MOSES B. SALISBURY, OF CHICAGO, ILLINOIS.

PROTECTIVE INSULATING SLEEVE.

Application filed December 21, 1922. Serial No. 608,340.

To all whom it may concern:

Be it known that I, MOSES B. SALISBURY, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented an Improved Protective Insulating Sleeve, of which the following is a specification.

This invention relates to protective insulating sleeves for encasing electrical conductors, designed and adapted to protect linemen and others from shock, when working around said conductors.

The object of the invention is to provide an improved protective sleeve for the purpose specified, which is simple in construction, may quickly and conveniently be adjusted to and disengaged from conductor wires, is effective for its designed purpose, and which will retain its position on a conductor wire under contemplated conditions of use without separate securing means.

To effect the foregoing objects, my improved protective sleeve is made of suitable resilient insulating material, preferably rubber, split lengthwise on a substantially straight line—which can readily be done in process of manufacture—an interior lip being formed on one severed edge of said sleeve which overlaps the other severed edge thereof. Said sleeve will preferably be made of vulcanized rubber of proper thickness both to provide effective insulation for the conductor wire and to render said sleeve sufficiently stiff that it may be snapped onto and off from the conductor wire and will retain its position on said wire under contemplated conditions of use, unsupported by other means.

Also, to facilitate applying my improved protective sleeve to a conductor wire, said sleeve is provided at its severed edges with exterior ribs, the adjacent sides of which flare outwardly, forming a groove in which the conductor wire is adapted to be seated and the flared sides thereof providing wedging surfaces adapted to force the severed edges of said sleeve apart when said sleeve is subjected to pressure against a conductor wire seated in the groove formed by said flared surfaces, thus affording convenient means for snapping said protective sleeve onto said conductor wire.

In the accompanying drawings, in which my invention is fully illustrated,

Figure 1 is an end view of a protective insulating sleeve embodying my invention and improvements, shown as applied in use to a conductor wire.

Figure 2 is a side view thereof; and

Figure 3 is a view similar to Fig. 1, illustrating a modification.

Referring now to the drawings, 1 designates the protective sleeve as a whole, shown as applied in use to a conductor wire 2.

To provide for quickly and conveniently applying the sleeve 1 to the conductor wire, said sleeve it split lengthwise on a line of severance substantially parallel with its axis, as shown at 3—which may quickly and conveniently be done in process of manufacture. The severed edges 4 and 5 of said sleeve are maintained normally in contact with each other by the resilience of said sleeve, and formed on one severed edge thereof—as shown on the severed edge 4—is an interior lip 6 which overlaps the other severed edge 5. As shown, in Fig. 1, said lip decreases in thickness outwardly, terminating in a thin edge.

Formed on the severed edges 4 and 5 of the sleeve 1 are exterior ribs 7 and 8, the adjacent sides of which diverge outwardly, forming a groove 9 lengthwise of said sleeve, the sides of which form flared extensions of the severed edges thereof and which provide wedging surfaces adapted for forcing the severed edges 4 and 5 of said sleeve apart when pressure is exerted on said sleeve against a conductor wire seated in the groove 9, thus providing convenient means for snapping said sleeve over a conductor wire in applying it thereto, the resilience of said sleeve again forcing the severed edges of said sleeve together when the conductor wire enters the bore thereof.

If, for an reason, difficulty is experienced, in practice, in forming the lip 6 with a thin outer edge as shown in Fig. 1—as should it be uneven or ragged when finished—my invention contemplates equally forming said lip with a thick outer edge and in rabbetting the free edge of the sleeve other than that to which said lip is attached so as to bring the inner surface of said lip substantially flush with the inner surface of the sleeve.

This modification is shown in Fig. 3 of the drawings in which 1′ designates the sleeve, 2′ the conductor wire, 3′ the line of severance of said sleeve, 4′ and 5′ the severed

edges of said sleeve and 6′ the lip formed on the severed edge 4′ and which overlies the severed edge 5′.

As shown in said Fig. 3, the lip 6′ is formed with a thick outer edge 10, and the severed edge 5′ of the sleeve is rabbetted, as shown at 11, to receive said lip, the relation being such that the inner side of said lip will be substantially flush with the inner surface of the sleeve.

My improved protective sleeve is designed for use both with insulated and uninsulated conductors, the conductor 2, Fig. 1, being shown as insulated, while the conductor 2′, Fig. 3, is shown as uninsulated.

As previously stated, the protective sleeve 1 will preferably be made of rubber which is vulcanized to impart desired strength and resilience thereto, and is made sufficiently thick to provide effective insulation for said wire, whereby persons who may come into contact with or grasp said protective sleeve with their hands will be protected from shock.

It will also be understood that the overlapping lip 6 (which bridges the slit in the tube) is sufficiently resilient to bend to one side, out of the way, when the sleeve is forced over the conductor and to snap back into normal position, against the interior surface opposite the slit, after the conductor has passed the lip. This lip is important in that it locks the sleeve on the conductor, rendering it practically impossible to dislodge the sleeve from the conductor until the sleeve is again opened by taking hold of both of the lips 7 and 8 and spreading the same sufficiently to permit the conductor to pass out.

I claim—

1. A protective sleeve for the purpose specified, made of resilient insulating material, said sleeve being split lengthwise and comprising a lip formed on one of its severed edges which overlaps the other severed edge thereof and bridges the slit of said sleeve.

2. A protective sleeve for the purpose specified, made of resilient insulating material, said sleeve being split lengthwise on a substantially straight line of severance and comprising a lip formed on one of its severed edges which overlaps the other severed edge thereof and bridges the slit in said sleeve, substantially as described.

3. A protective sleeve for the purpose specified, made of resilient insulating material, said sleeve being split lengthwise on a substantially straight line of severance, and comprising an interior lip formed on one of its severed edges which overlies the other severed edge thereof, substantially as described.

4. A protective sleeve as specified in claim 3, which also comprises exterior ribs on its severed edges, the adjacent sides of which flare outwardly providing wedging surfaces whereby the severed edges of said sleeve are forced apart when pressure is applied to said sleeve to snap it over a conductor wire seated in the groove formed by the flared sides of said ribs, substantially as described.

5. A protective sleeve as specified in claim 3, in which the interior lip thereof has a thick outer edge, substantially as described.

6. A protective sleeve as specified in claim 5, in which the severed edge of said sleeve other than that to which said interior lip is attached is rabbetted to receive the edge of said lip, substantially as described.

In witness that I claim the foregoing as my invention, I affix my signature this 15th day of December, A. D. 1922.

MOSES B. SALISBURY.