

F. K. SINGER.
LINEMAN'S SHIELD.
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1,224,970.

Patented May 8, 1917.

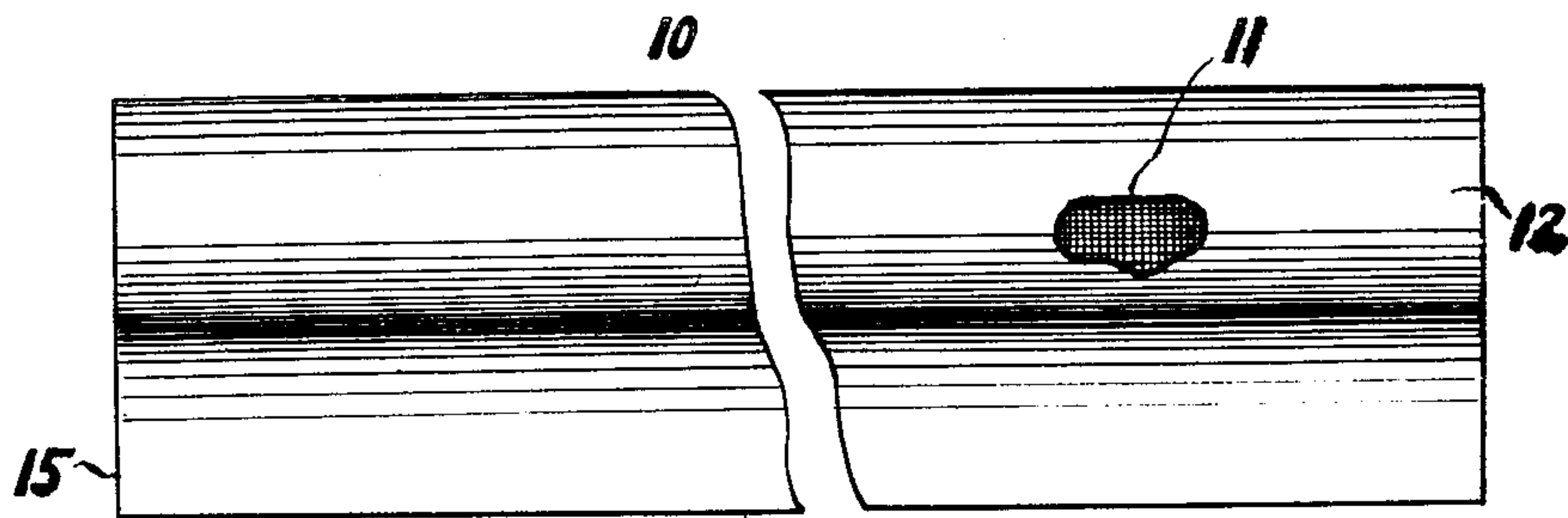


Fig. 1.

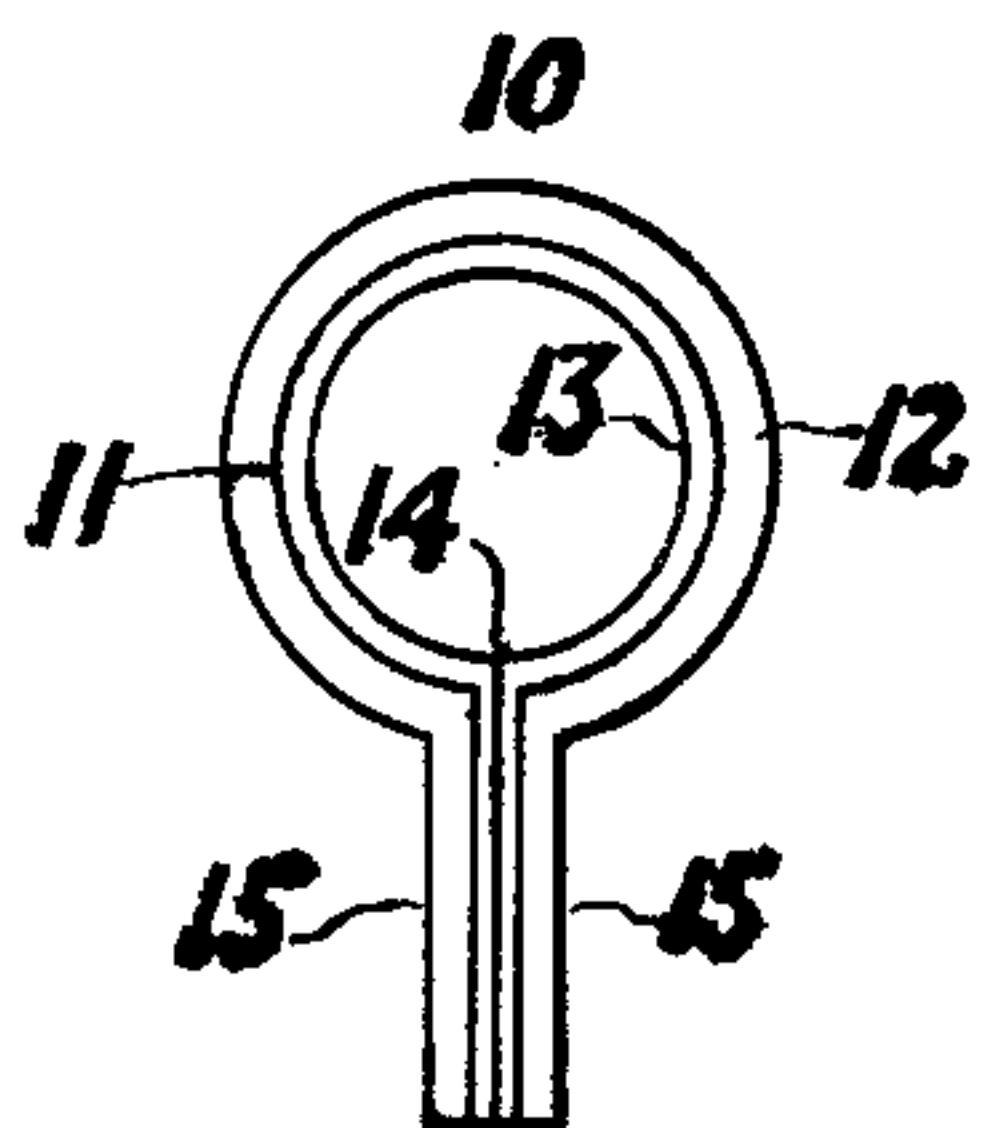


Fig. 2.

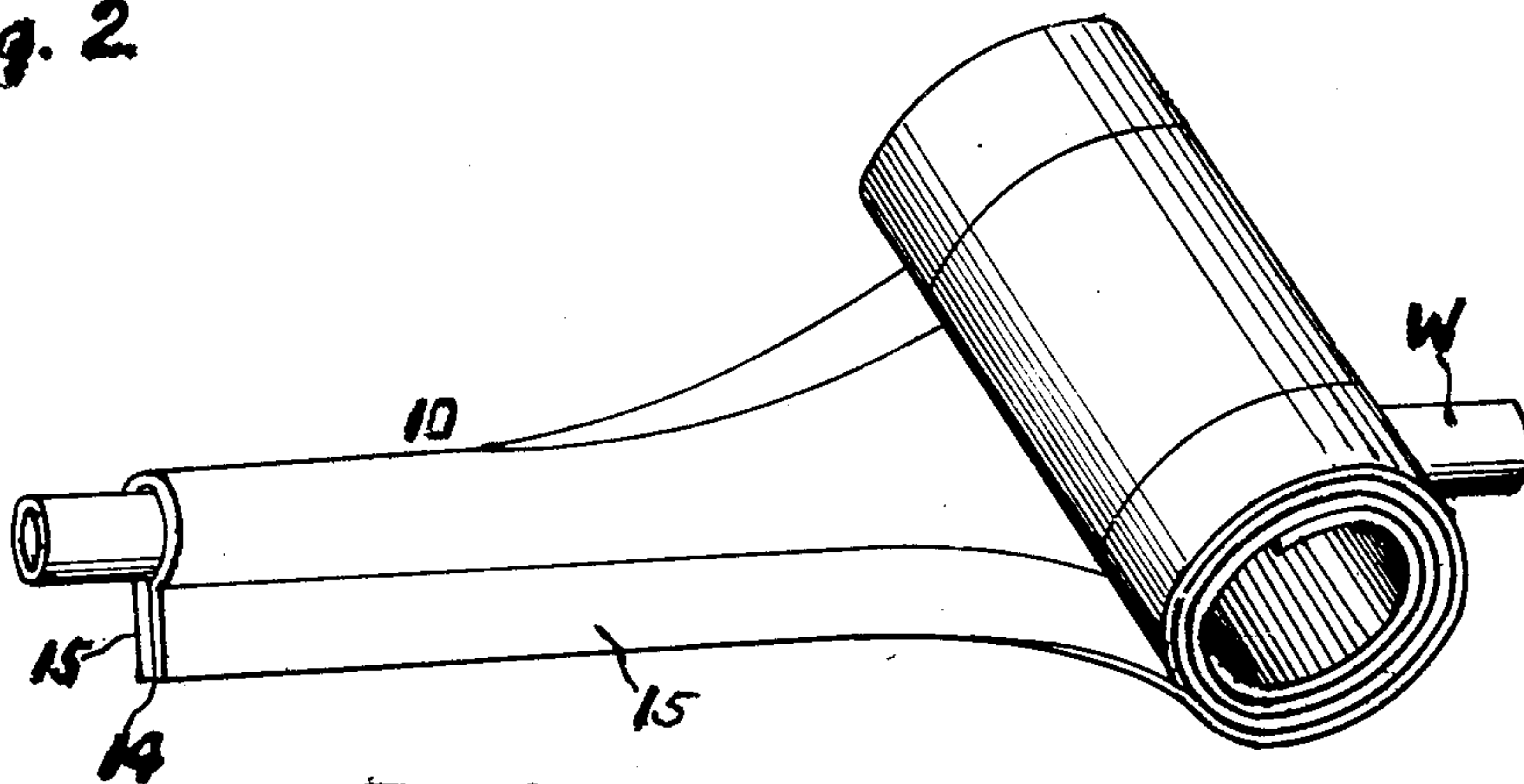


Fig. 3.

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UNITED STATES PATENT OFFICE.

FRANK K. SINGER, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF NEW YORK.

LINEMAN'S SHIELD.

1,224,970.

Specification of Letters Patent.

Patented May 8, 1917.

Application filed November 3, 1916. Serial No. 129,397.

To all whom it may concern:

Be it known that I, FRANK K. SINGER, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have
5 invented certain Improvements in Linemen's Shields, of which the following is a specification.

This invention relates to means for protecting electrical linemen from contact with
10 high tension conductors. It is especially adapted for the use of telephone and telegraph linemen when compelled to work in proximity to electric light and power wires. It has for its objects the provision of a
15 strong but light device which may be readily carried in a lineman's kit, easily applied to and removed from dangerous wires, and which will effectually insulate the body of the workman therefrom. It consists in the
20 various features hereinafter described and more particularly pointed out in the claim.

In the accompanying drawing illustrating an embodiment of the invention, Figure
25 1 is a side elevation of my improved shield with a portion of the outer layer broken away to show the reinforcing layer of fabric; Fig. 2 is an end elevation thereof; and Fig. 3 illustrates in perspective the device
30 as it is being applied to a wire. The same reference characters designate like parts in all figures.

At 10 appears a tube of flexible insulating material, conveniently rubber, of an approximately uniform internal diameter sufficient to receive the high tension wire, with its covering, from which protection is desired, and of such length that when in place it will extend upon the wire beyond
40 each side of the body of the user. The thickness of the material is great enough to resist the voltages to which it is to be subjected, with an ample factor of safety, and to give the necessary mechanical
45 strength; the latter and the rigidity of the device as well, being preferably increased by a layer of fabric 11 molded between outer and inner layers 12 and 13, respectively, of rubber.

The tube is longitudinally divided, as indicated at 14, and at each side of the opening thus formed projects a flange 15 continuous with the tube wall and constructed in the same manner, but so molded that it is radial with respect to the tube. The inner
55 faces of these flanges lie closely adjacent and substantially parallel to one another, so that the tube is practically closed along the line of division.

In carrying the shield it may conveniently be rolled, as is partly illustrated at the left of Fig. 3 of the drawing. When the lineman finds that he must work near a dangerous wire, as W, with which his body or conducting objects that he must
65 handle might come in contact, he places the center of one end of the shield upon the upper side of the wire and unrolls it in the manner shown in Fig. 3. The tube thereupon springs into place, the opening
70 14 closing beneath the wire. The coöperation of the flanges insures the closure and their weight so lowers the center of gravity of the divided side that it always remains underneath the wire, guarding against accidental displacement which might occur
75 through the weight of the shield and pressure from above were it to become inverted. The contact of the inner wall of the tube throughout its length with the wire gives
80 sufficient resistance to movement so that it is not liable to be displaced longitudinally. In wet weather the flanges also prevent moisture from entering the interior of the tube, draining it away over the entire length
85 and permitting it to drip from their lower edges. The lineman is therefore not endangered by surface conduction. Obviously, the shield may be removed as easily as it was applied by drawing it away from
90 the wire, which passes through the opening 14.

I claim:

A lineman's shield comprising a tube of flexible insulating material, said tube being
95 of approximately uniform internal diameter with its wall longitudinally divided at one side, there being a flange projecting out-

wardly from the tube along each edge of the division, such flanges lying closely adjacent and substantially parallel to one another.

5 In testimony whereof, I have signed my name to this specification in the presence of

two subscribing witnesses, this 23rd day of October 1916.

FRANK K. SINGER.

Witnesses:

HARRY A. WOLF,
C. E. CONWAY.