

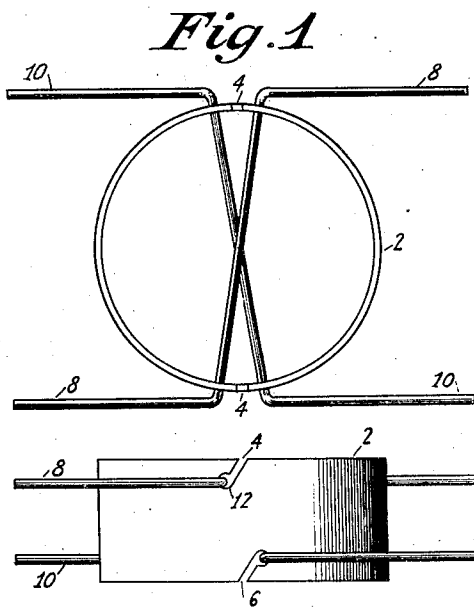
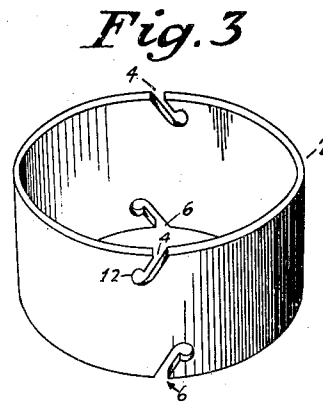
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TRANSPPOSITION DEVICE

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TRANSPPOSITION DEVICE

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This invention relates to means for transposing wires, and more particularly to a transposition device for use in connection with communication lines carrying intelligence by means of high frequency currents.

It has been found that high losses frequently result from ordinary transposition devices when they are applied to high frequency communication. It is an object of my invention to reduce these losses, and to do this I employ a high grade insulation, such as bakelite, and a novel structural arrangement whereby the conductors are in contact with the transposition device over only a relatively small surface.

When a line is suspended over long spans it sometimes proves desirable to transpose the conductors of the line at points intermediate the supporting poles. Accordingly, it is a further object of my invention to provide a transposition device especially adapted for use where the line itself is the only supporting means for the transposition device.

The more detailed specification which follows is accompanied by a drawing in which Figure 1 is a plan view;

Figure 2 is an elevation; and

Figure 3 is a perspective of a preferred form of my invention.

Referring to all of the figures, the transposition device is comprised of a cylindrical ring 2, of bakelite, or other high grade insulating material, in which there are formed or cut two pairs of slots 4, 4 and 6, 6, serving for the support of the transmission line wires 8 and 10 respectively.

The slots 4 and 6 may preferably, though not necessarily, terminate in an enlarged anchor hole, as 12. As may be readily seen from the drawings, the pairs of slots are substantially diametrically opposed, and are cut from the edge inwards in the direction of oppositely threaded helices. This construction results in the transmission line wires being more securely anchored in the slots when the line is placed under tension.

It is obvious that this transposition device is exceedingly light and capable of support solely by the conductors; that its insulation is of a high grade; and that but a small part

of each conductor is in contact with the insulation, thereby reducing leakage losses.

The foregoing is disclosed by way of illustration and not limitation of my invention, which I claim is:

1. A transposition device comprising a ring of insulating material having two pairs of approximately diametrically opposed openings, each pair being arranged to support a wire across the ring.

2. A transposition device comprising a cylindrical ring of bakelite having at each end two substantially diametrically opposed slots cut from the edge inwards in the direction of oppositely threaded helices.

3. The combination with a two wire transmission line of a transposition device comprising a cylindrical ring of insulating material having at each end, for each wire, a pair of supporting slots cut from the edge in oppositely sloping directions, whereby the transposed wires are more securely drawn into said slots when placed under tension.

4. The combination with a transmission line having spaced and parallel wires of a transposition device for transposing spaced wires of the transmission line comprising a single body of insulation having transverse supporting surfaces formed therein for two wires, the extremities of the supporting surfaces for each wire being spaced the same as the spacing of the transmission line.

5. The combination with a two wire transmission line of a transposition device, said device being composed of a body of insulation having, for transposing the wires, transverse supporting surfaces the extremities of which are spaced substantially the same as the spacing of the wires of the transmission line, and so formed that tensile stress applied to the transmission line completely supports the transposition device on said line and also serves to anchor the wires more securely against the supporting surfaces.

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