BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G31.134.2
Issue 1, August, 1952
AT&T Co Standard

OPEN WIRE TYING
POSITION OF WIRE ON INSULATOR

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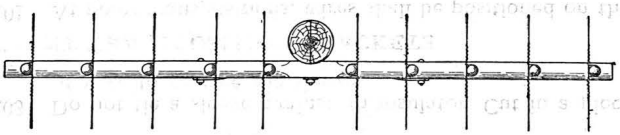
1. GENERAL

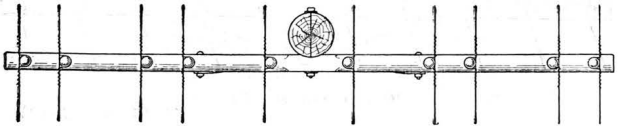
1.01 The information in this section was formerly contained in G31.134, Issue 2, which is canceled.

1.02 When tying or retying wires on straight line poles, attach them to the insulators as shown in the following:

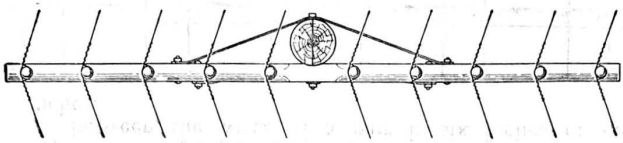
(a) When wires are not point transposed, also on wires of a pair which are point transposed where the wires of the pair are on 12-inch spacing.



(b) When wires are point transposed and the spacing between the wires of a pair is six inches or eight inches.



(c) At corners.

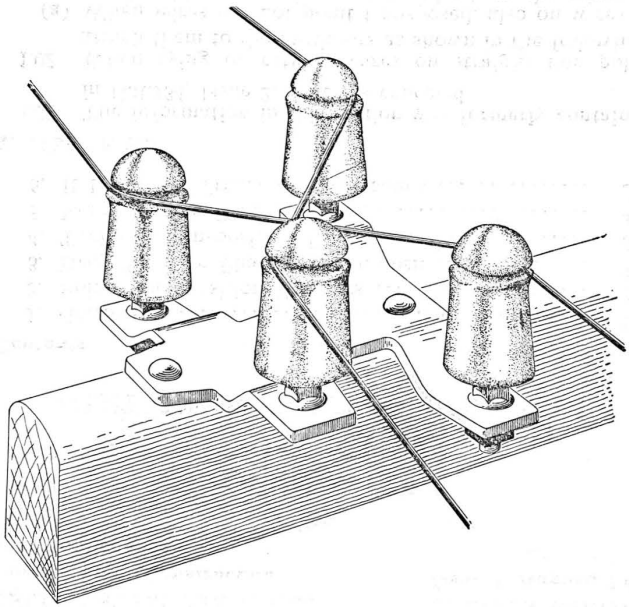


Pull of wires shall be against insulators

1.03 Do not tie a sleeve against an insulator. Cut in a piece of wire to replace the sleeve.

2. POINT TRANSPOSITION BRACKETS

2.01 At point transpositions, wires shall be positioned on the insulators as illustrated.



2.02 Wire shall be left untied at point transposition brackets except at the following locations where horseshoe ties shall be placed on each insulator.

(a) Storm guyed pole.

(b) Highway crossing.

(c) Railroad crossing.

2.03 When point transpositions occur in the same pair of conductors on consecutive poles, the line wires may be left untied at not more than two consecutive poles. In the case of three consecutive transpositions, tie at the center pole unless one of the adjacent poles requires tying because it is a corner, storm fixture or crossing pole.

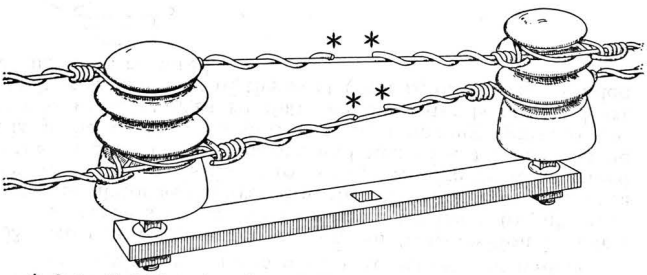
3. DROP TYPE OR PHANTOM TRANSPOSITION BRACKETS

3.01 At drop type or phantom brackets the wires are tied to the insulator so that any pull will bear against the insulator. This pull may be present because of a corner in the pole line or because of the configuration of the wires as they form the transposition.

3.02 The wires should be tied to the insulators using the type of tie recommended in the tying chart of G31.134.1 based on the kind of wire and the average span length.

4. TANDEM TRANSPOSITION BRACKETS

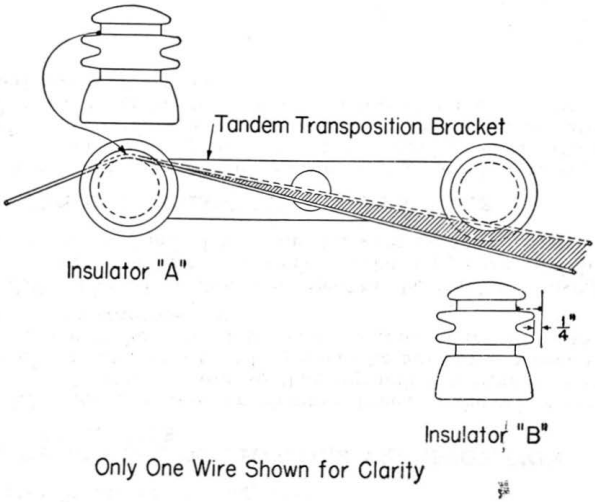
4.01 In left-over-right transpositions, the left wire is placed in the top grooves of the TW insulators; in right-over-left transpositions, the right wire is placed in the top grooves. The following figure illustrates a left-over-right transposition that has been tied in place.



* Cut off 2¾ inches from S Tie-Splint to prevent overlapping.

4.02 No ties are required on tandem transposition brackets on straight line poles except at highway crossings.

4.03 No ties are required on tandem transposition brackets at corners unless the wire has a tendency to pull away from the insulator as illustrated in the following figure. Because of the abrasion that is likely to occur, the wire must be pulled into the base of the wire groove and tied with a horseshoe tie if it is in the shaded area shown in the following figure. If the corner is great enough so that the wire stands out at least 1/4 inch from the edge of the skirt (that is, outside the shaded area) no tie is required.

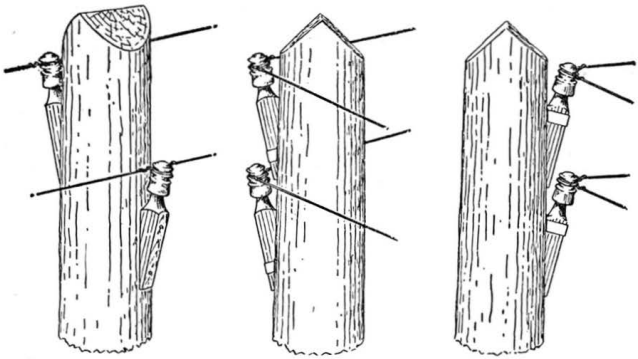


Only One Wire Shown for Clarity

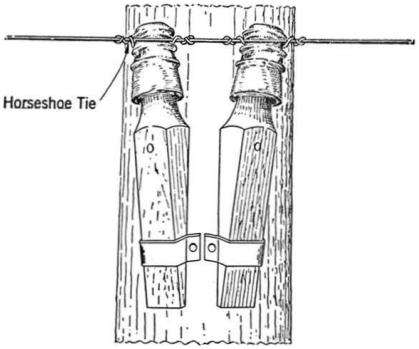
4.04 If a corner occurs at a highway crossing, tie each wire to each insulator with a modified spiral tie for corners up to 15 feet. For corners over 15 feet tie insulator "A" (see preceding figure) with horseshoe tie. Tie insulator "B" with horseshoe tie unless corner is large enough so that the wire stands outside of the shaded area. If so, no tie is required at insulator "B."

5. WOODEN POLE BRACKETS

5.01 On bracket lines tie the wires on the side of the insulators toward the pole, except when the insulators are on the outside of the corner. In the latter case, tie the wires so that they will pull against the insulators.



5.02 If two wooden pole brackets have been placed so that the line wire will clear the pole, position and tie the wires as shown in the following illustration.



6. R-1 AND R-2 TRANSPOSITION SYSTEMS

6.01 In R-1 and R-2 transposition systems, the wires are placed as shown in the section on "R Type Transpositions—Placing Wire."