SECTION 623-230-201
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OPEN WIRE
DEAD ENDING

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1. GENERAL

1.01 This section describes the methods of dead ending the various kinds of open wire.

1.02 This section is reissued to include dead ending 128 Copper-Steel Line Wire using the B Copper Dead-End Sleeve and dead ending all grades of 109 Steel Line Wire using B Wire Deadend, and to eliminate the use of dead-end wires.

Precautions

1.03 General instructions on wire stringing precautions are covered in Sections 623-100-010, 623-101-010, 623-102-010, and 623-103-010 of the Bell System Practices. ***Wear eye protection when cutting wire ends.***

2. MATERIALS

2.01 Materials used in dead ending are listed in Table A.

TABLE A — DEAD ENDING LINE WIRE

LINE WIRE		DEAD-END SLEEVES		B WIRE DEADEND	WIREVISE
TYPE	SIZE	B COPPER	OFFSET STEEL		
COPPER	080 104 128 165	080 104 128 165	NONE	NONE	NONE
COPPER-STEEL	080 104 128	080 104H 128	NONE	NONE	NONE
STEEL	083 083H 109 109H 109E or F 134 134H	NONE	109[2] 109[2] 109 109 109 109[3] 109[1]	109[2] 109[2] 109 109 109 109[3] 109[1]	109[2] 109[2] 109 109 109 109[3] 109[1]

NOTE 1: Dead end 134H Steel Line Wire by joining to 109E or 109F Steel Line Wire with 134H x 109H Combination S Steel Sleeve and dead end 109E or 109F Steel Line Wire.

NOTE 2: Dead end 083 or 083H Steel Line Wire by joining to 109 Steel Line Wire with 109 x 083 Combination S Steel Sleeve and dead end 109 Steel Line Wire.

NOTE 3: Dead end 134 Steel Line Wire by joining to 109H Steel Line Wire with 134 x 109 Combination S Steel Sleeve and dead end 109H Steel Line Wire.

**Reprinted to comply with modified final judgment.

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3. DEADENDS USING DEAD-END SLEEVES

3.01 There are two types of dead-end sleeves, the B Copper Dead-End Sleeve (furnished in five sizes) for use in dead ending 080, 104, 128, and 165 Copper Line Wires, and 080, 104, and 128 Copper-Steel Line Wires; and the Offset Dead-End Sleeve for use in dead ending all sizes of steel line wires listed in Table A. The sizes of B Copper Dead-End Sleeves are stamped on the sleeves for easy identification.

3.02 The steps to be taken in dead ending with dead-end sleeves are detailed as follows:

(1) Select a dead-end sleeve in accordance with Table A.

(2) Clean the line wire with abrasive cloth and pass a sufficient length of the line wire through either end of the dead-end sleeve and place the wire in the wire groove of an insulator.

(3) Bend the line wire around the insulator and pass the end of the wire through the empty end of the dead-end sleeve (Fig. 1).

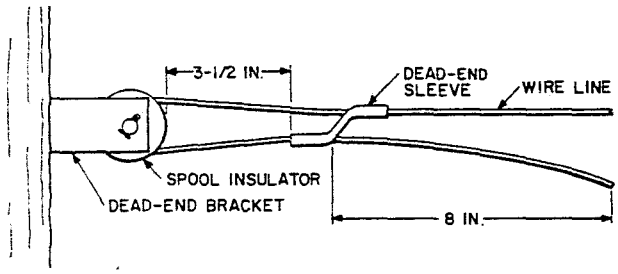

Fig. 1—Dead-End Sleeve Placed

(4) Crimp the sleeve about 1/4 inch from each end with the cutting edge of the side-cutting pliers to hold the sleeve in the desired position (Fig. 2).

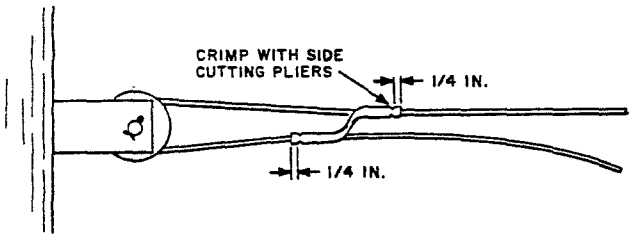

Fig. 2—Dead-End Sleeve Crimped

(5) B Copper Dead-End Sleeves can be applied with a Nicopress Tool. The 104 and 080 sizes require 2 presses on each end in the C groove of the 31-QC Nicopress Tool; the 104H and 128 sizes require 3 presses on each end in the Q groove of the 31-QC Nicopress Tool; and the 165 size requires 3 presses on each end in the J groove of the 51-JE Nicopress Tool. Make the first presses at the inside 1/8 inch from the bend of the offset. Then space additional presses so about 1/8 inch is left unpressed at end of the sleeve. When using the Q or J groove in pressing the offset leg of the dead-end sleeve, take care to prevent damaging the adjacent line wire with the pressing jaws. Such damage may be avoided by letting the line wire rest in the C or E groove during the pressing operation (Fig. 3).

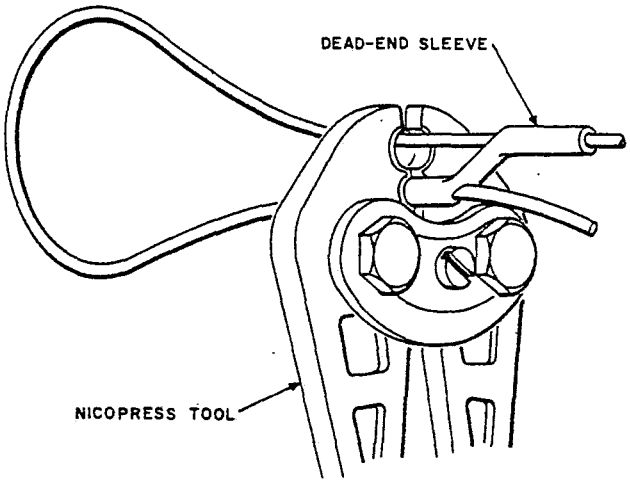

Fig. 3—Pressing Dead-End Sleeve

(6) The 109 Steel Dead-End Sleeve is applied with the 51-JE Nicopress Tool and requires 3 presses on each end of the sleeve in the J groove of the tool. Make the first press on the inside 1/8 inch in from the bend of the offset. Space the other 2 presses so 1/8 inch is left unpressed at the end (Fig. 4).

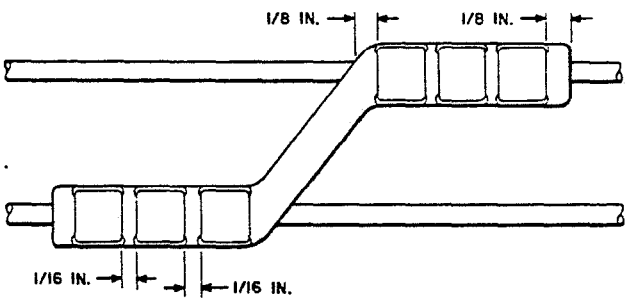

Fig. 4—Dead-End Sleeve Pressed

(7) ▮After the sleeve has been pressed, bend back the free 8-inch length of line wire forming a bridling loop (Fig. 5). The end of the wire should be even with the end of the sleeve nearest the insulator. This loop is used for bridling purposes. If bridle wire is not connected when line wire is dead ended, tape the loop end to the sleeve end.▮

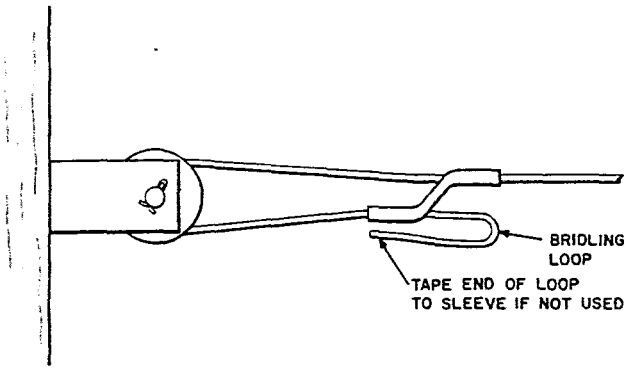

Fig. 5—Bridling Loop Formed

4. DEADENDS USING 109 WIREVISE

4.01 The Wirevise consists of a cartridge, a yoke, and a bail (Fig. 6). The cartridge contains a spring-loaded two-jaw chuck which grips the wire. It cannot be reused.

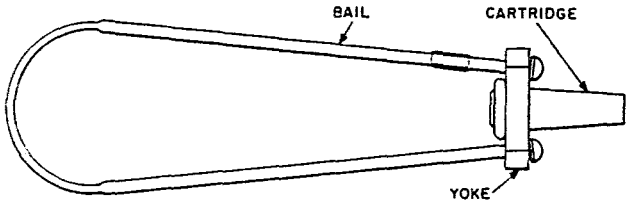

Fig. 6—109 Wirevise

4.02 Do not use the 109 Wirevise at coastal locations in extreme conditions of salt spray and salt fog.

4.03 Install the 109 Wirevise as follows:

(1) Remove the bail from the yoke by squeezing slightly and pushing until the flat section slips through the slot in the yoke.

(2) Pass the bail around the spool insulator of the dead-end bracket, then force the flat section of the bail through the slot in the yoke and pull until the ends of the bail rest firmly against the yoke.

(3) Pull the wire to proper tension and cut it so one inch will extend beyond the rear end of the cartridge.

(4) Insert the end of the wire in the small end of the cartridge and push it through until all the slack is taken up.

(5) Apply tension to the Wirevise by slowly releasing the slack blocks or wire puller. Fig. 7 shows Wirevise installed.

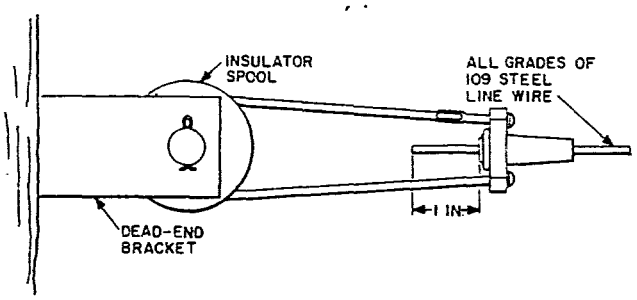

Fig. 7—Wirevise Installed on 109 Wire Line

4.04 The 109 Wirevise is installed to dead end 134H Steel Line Wire as follows:

(1) Place the 109 Wirevise as explained in 4.03 (1) through (3).

(2) Pull the 134H wire to proper tension and cut it about 14 inches from the small end of the cartridge of the 109 Wirevise.

(3) Join a piece of 109E or 109F Steel Line Wire to the end of the 134H wire with a 134H x 109H Combination S Steel Sleeve.

(4) Cut the 109 E or 109 F wire to the proper length and insert the end of the wire in the small end of the cartridge. Push it through until all the slack is taken up. About one inch should extend beyond the cartridge, and there should be about 12 inches between the cartridge and the 134H x 109H sleeve.

(5) Apply tension to the 109 Wirevise by slowly releasing the slack blocks or wire puller. Fig. 8 shows Wirevise installed.

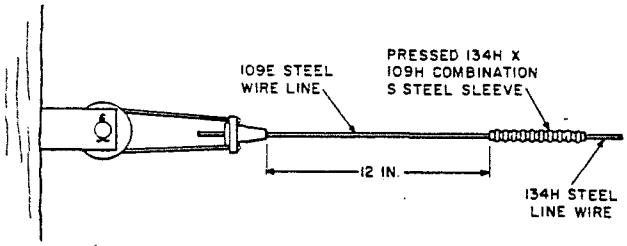

Fig. 8—Wirevise Installed on 134H Wire Line

5. ▶B WIRE DEADEND◀

5.01 ▶B Wire Deadend can be used for all types of 109 Steel Line Wire (Table A). After tensioning line wire to the proper sag, place the B Wire Deadend (Fig. 9, 10, 11, and 12).◀

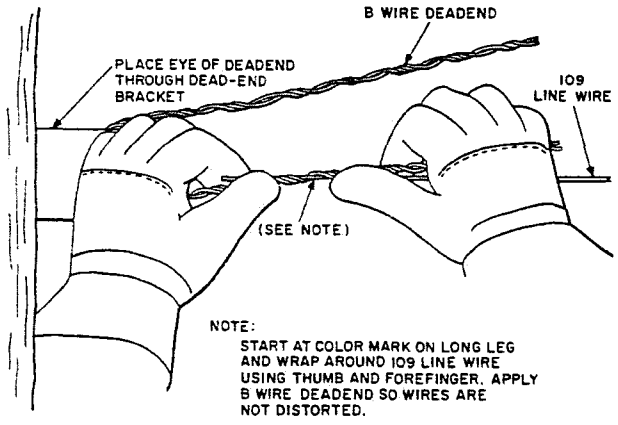

Fig. 9—Starting B Wire Deadend on 109 Wire

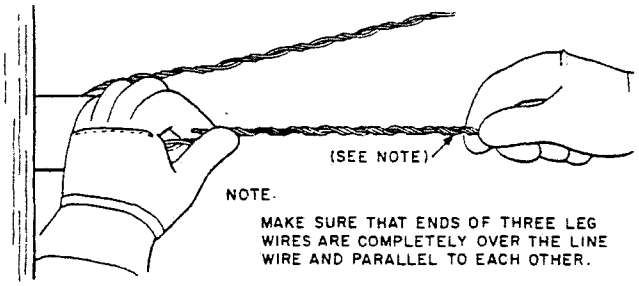

Fig. 10—One Leg of B Wire Deadend Placed

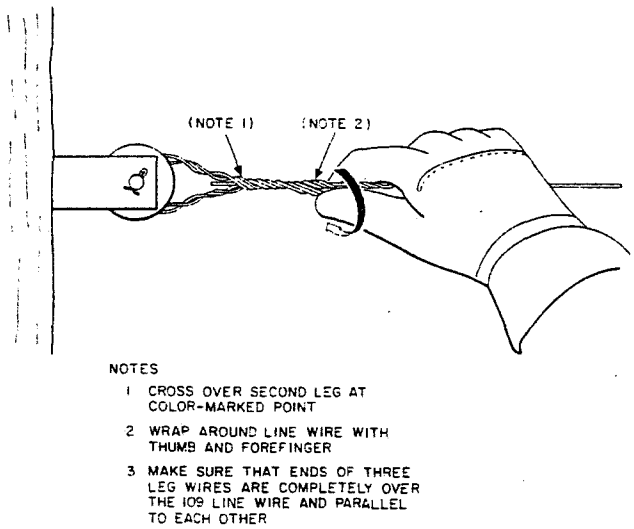

Fig. 11—Placing Second Leg of B Wire Deadend

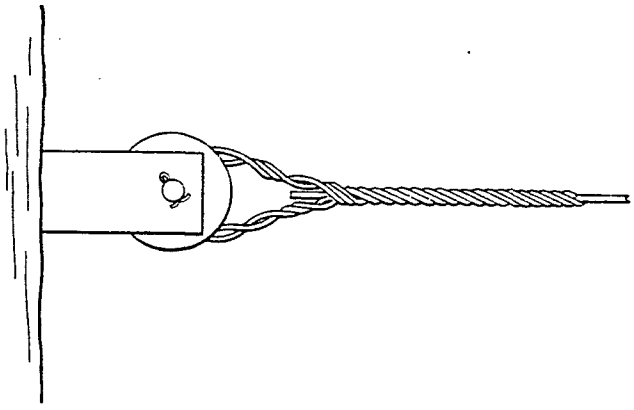

Fig. 12—B Wire Deadend Placed