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BELL SYSTEM PRACTICES **SECTION G32.135**
Outside Plant Construction **Issue 4, September 15, 1949**
and Maintenance **AT&T Co Standard**

DROP AND BLOCK WIRING
BRIDGING CONNECTORS

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1. GENERAL

1.01 This section covers the methods of installing the bridging connectors used for drop and block wiring purposes.

1.02 The reissuance of this section is necessitated by the standardization of the 2B, 3B and 6C Bridging Connectors to supersede the 2A, 3A, 4A and 6A Bridging Connectors in the bridging of AL, HC, HD and block wire on copper, copper-steel and steel line wires. The 2B and 3B Connectors are of brass and the 6C of corrosion-resisting steel.

1.03 The new 2B, 3B and 6C Connectors are equipped with spring lock washers which are intended to minimize the tendency of connectors to loosen when line wires are caused to vibrate by cross winds.

2. TYPES AND USES OF BRIDGING CONNECTORS

2.01 **1A Bridging Connector (plated brass):** For bridging drop or block wires to drop and block wires.

2.02 **2B Bridging Connector (brass):** For bridging HC, HD, or block wires on 080 copper and copper-steel line wires.

2.03 **3B Bridging Connector (brass):** For bridging AL, HC, HD or block wires on 104 and 128 copper and copper-steel line wires.

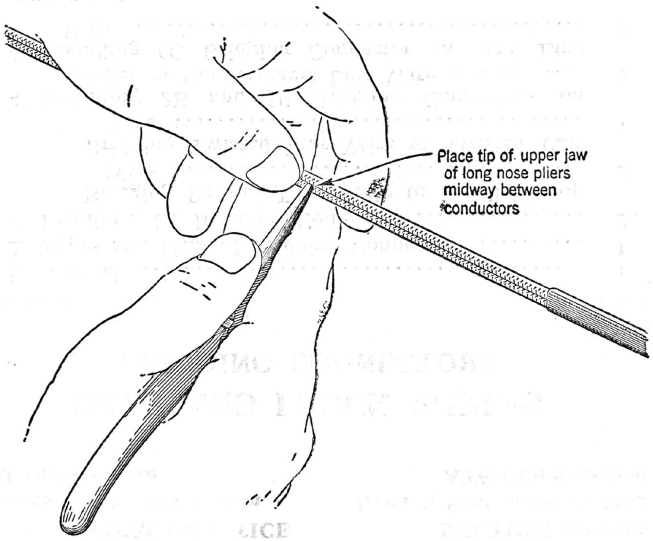
2.04 **6C Bridging Connector (corrosion-resisting steel):** For bridging HC, HD or block wires on 083, 109 and 134 steel line wires.

3. INSTALLING 1A BRIDGING CONNECTOR

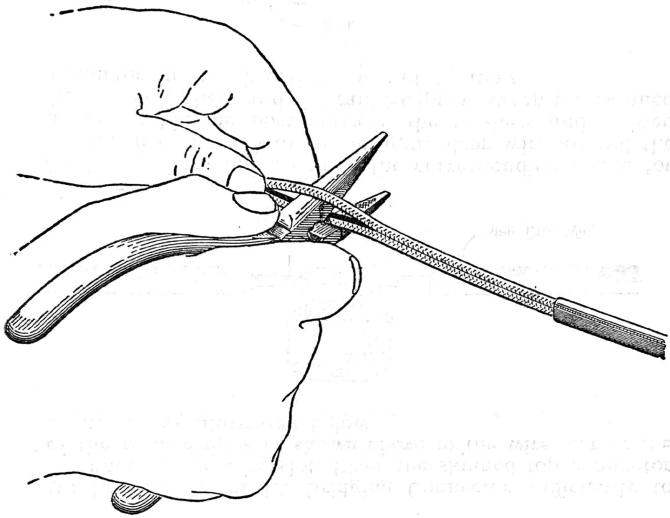
3.01 **Bridging Parallel Drop Wire to Parallel Drop Wire,** proceed as follows:

(1) Remove approximately 10 inches of the wire covering over the insulated conductors from the main drop wire at the point where the bridging connection will be made. Slit the wire covering on the flat sides with the B Braid Stripper and pull the two halves from the insulated conductors. Cut the outer covering at the two ends of the drop wire opening with diagonal cutters.

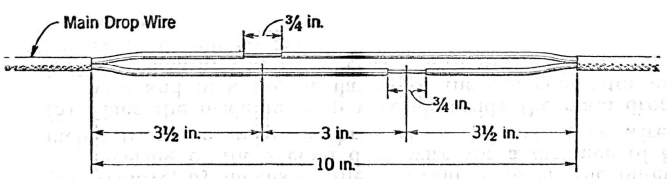
(2) Separate the exposed insulated conductors of the drop wire by means of long nose pliers. Rest the tip of the upper jaw of the pliers midway between the insulated conductor at any point as shown below.



Apply a steady pressure on the pliers until the tip breaks through the fin connecting the insulated conductors and push the pliers through as far as they will go. Remove the pliers and separate the conductors for the remaining length with the fingers.

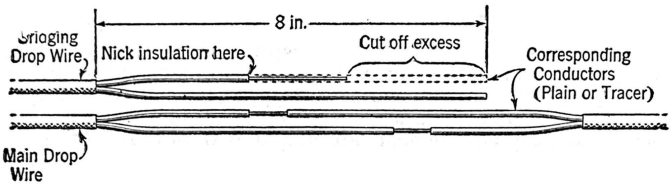


(3) Locate the two points for placing the bridging connectors approximately 3 inches apart and 3-1/2 inches from the ends of the drop wire opening as indicated below. Skin and clean the insulated conductors for a length of 3/4 inch at these points.

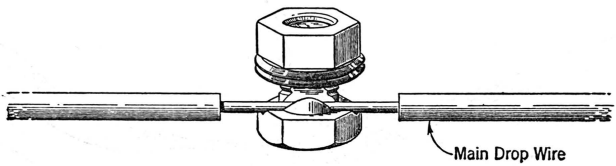


(4) Remove, by means of the B Braid Stripper, the outer covering of the second drop wire for a distance of 8 inches from the end to be bridged on the main drop wire.

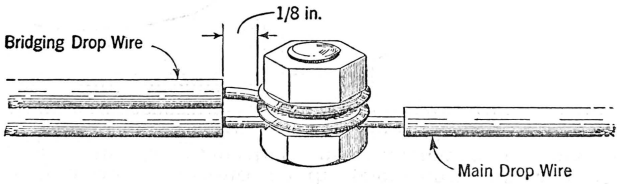
(5) Place the bridging drop wire alongside the main drop wire and nick the insulation of the top conductor as indicated below. Cut off excess length of this wire, skin and clean its end as shown.



(6) Loosen nut of 1A Bridging Connector sufficiently to uncover the wire slot. Place the skinned top conductor of the **main drop wire shown above** in the wire slot of the connector as illustrated below.



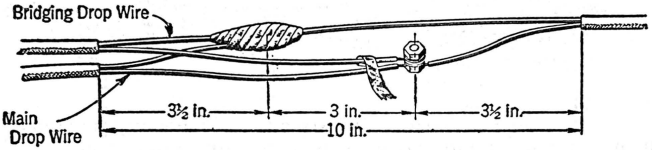
(7) Wrap the skinned end of the corresponding conductor (plain or tracer) of the bridging drop wire around the connector binding post between the washers and tighten the nut with pliers and B Braid Stripper. Wrap the skinned conductor in the direction the nut tightens.



(8) Connect the other conductor of the bridging drop wire to the corresponding conductor of the main drop wire in a similar manner.

(9) Wrap each bridging connector with two reversed half-lapped layers of 3/4 inch rubber or DR type tape. Start the tape between the corresponding conductors of the bridging and main drop wire (as shown below) and extend one inch on each side of the connector.

(10) Cover each taped connector with two reversed half-lapped layers of 3/4 inch black friction tape. Start the tape between the corresponding conductors of the bridging and main drop wires and extend 1/2 inch beyond the ends of the rubber tape.

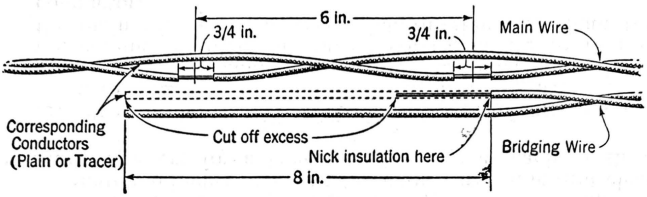


(11) Cover entire connection with two reversed half-lapped layers of 3/4 inch black friction tape. Start the taping at the center, extend to 1/2 inch over the end of the outer covering of the drop wire, reverse and extend to 1/2 inch over the other end, reverse again and end at center.

3.02 **Bridging Twisted Pair Wire to Twisted Pair Wire,** proceed as follows:

(1) Locate points for placing bridging connectors approximately 6 inches apart on the main wire. Skin and clean the conductors for a length of 3/4 inch at each of these points.

(2) Place bridging wire to be terminated alongside main wire and nick insulation of the bridging wire at the nearest bridging connector position as illustrated. Select the conductor (plain or tracer) corresponding to that of the main wire. Cut off excess length, skin and clean this conductor.

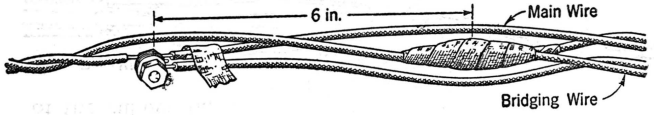


(3) Place main wire in wire slot of the 1A Bridging Connector and the bridging wire between the washers and tighten the connector nut with pliers and braid stripper.

(4) Bridge the other conductor of the bridging wire to the remaining conductor of the main wire in a similar manner.

(5) Wrap each bridging connector with two reversed half layers of 3/4 inch rubber or DR type tape. Start the tape between the corresponding conductors of the bridging and main drop wires and extend 1 inch on each side of the connector as shown below.

(6) Cover each taped bridging connector with two reversed half-lapped layers of 3/4 inch black friction tape. Start the tape between the corresponding conductors of the bridging and main drop wires and extend 1/2 inch beyond the ends of the rubber tape.



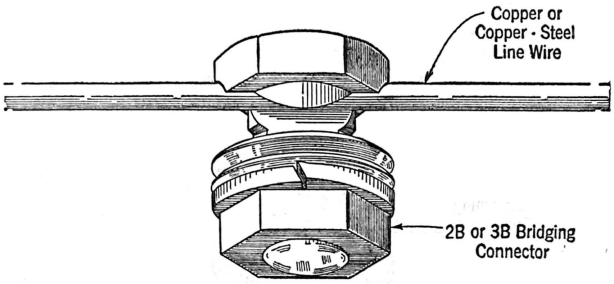
4. INSTALLING 2B AND 3B BRIDGING CONNECTORS ON COPPER OR COPPER-STEEL LINE WIRE

4.01 Proceed as follows:

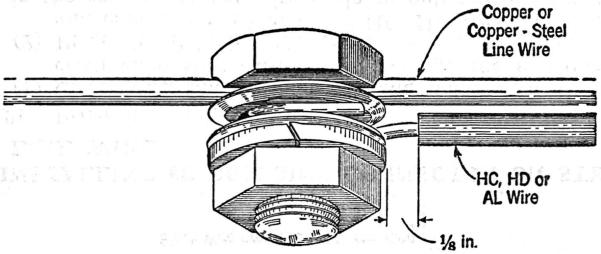
(1) Clean line wire at bridging points with abrasive cloth.

(2) Skin and clean ends of HC, HD, AL or Block Wire conductors.

(3) Loosen nut of bridging connector to uncover the wire slot and place connector on line wire as illustrated below.



(4) **Wrap HC, HD or AL Wire** conductor around the connector binding post between washers with a 1/8 inch separation between conductor insulation and washers, as shown. Tighten the nut of the connector with pliers and braid stripper.

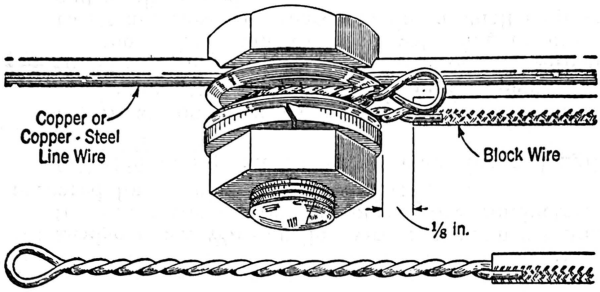


(5) **Bridge Block Wire** on line wire in a manner similar to the other wires after the block wire conductors are prepared for termination as follows:

(a) Skin and clean conductor ends for a length of 4-1/2 inches.

(b) Bend conductor back on itself with the wire end lapping over the insulation for 1/8 inch.

(c) Grip wire insulation and conductor end with pliers and twist conductor loop with fingers until the twists are close and there remains a small loop at the end as illustrated.



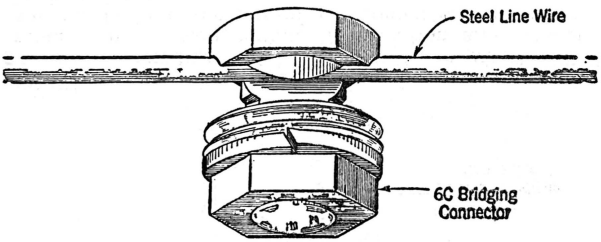
Block Wire prepared for termination

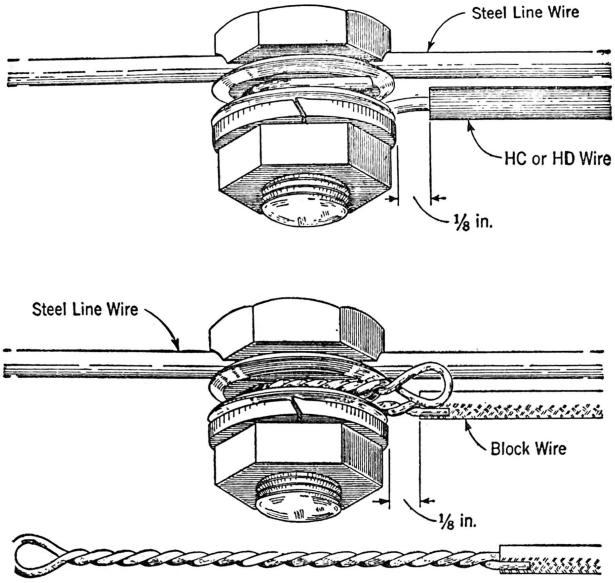
5. INSTALLING 6C BRIDGING CONNECTOR ON STEEL LINE WIRE

5.01 Proceed as follows:

(1) Clean steel line wire at bridging point with abrasive cloth exercising care not to damage the galvanizing.

(2) Place 6C Bridging Connector on the steel line wire and complete the placing of HC, HD or block wire as in the case of copper wire bridging outlined in Part 4.





Block Wire prepared for termination