BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G31.085.1
Issue 1, February, 1958
AT&TCo Standard

OPEN WIRE
B WIRE SPACER

Contents **Page**

1. GENERAL

1.01 This section covers the description, use, and installation of the B Wire Spacer.

1.02 The B Wire Spacer is installed at a pole location, and is towed to the center of a span of open wire, and is for use in preventing line wires from contacting each other in long span construction. It can also be used for maintaining specific wire spacing on lines transposed for carrier operation.

1.03 The B Wire Spacer should be installed only when specified by the engineer on detailed plans or other specific instructions.

2. DESCRIPTION OF B WIRE SPACER

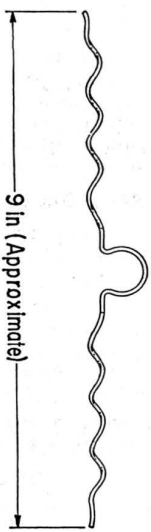
2.01 Four spool-type spacing insulators made of polyethylene, assembled end-to-end by means of three plastic tubes called "spacers," make up the assembly called the B Wire Spacer. Each insulator has 17 grooves, 1/2 inch apart, to facilitate spacing of line wire to a specified dimension. The B Wire Spacer is shown in the illustration following Paragraph 3.01.

2.02 For convenience in shipping, the B Wire Spacer is usually separated at about the center of the assembly. The two separate parts are easily assembled by means of a stainless steel screw, lock washer and nut which are furnished with the assembly.

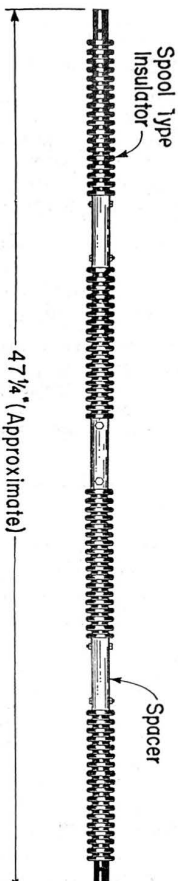
3. DESCRIPTION OF B TIE WIRE

3.01 The B Tie Wire is used for tying line wires to the spool-type insulators of a B Wire Spacer, and must be ordered separately. The B Tie Wire is made of spring bronze

wire, spirally shaped with a loop in the center to snap over the insulator. Two sizes are provided. The 104 size is for use with 104 copper and copper-steel line wire and the 128 size is for use with 128 copper and copper-steel line wire. The B Tie Wire is shown in the following illustration.



B TIE WIRE



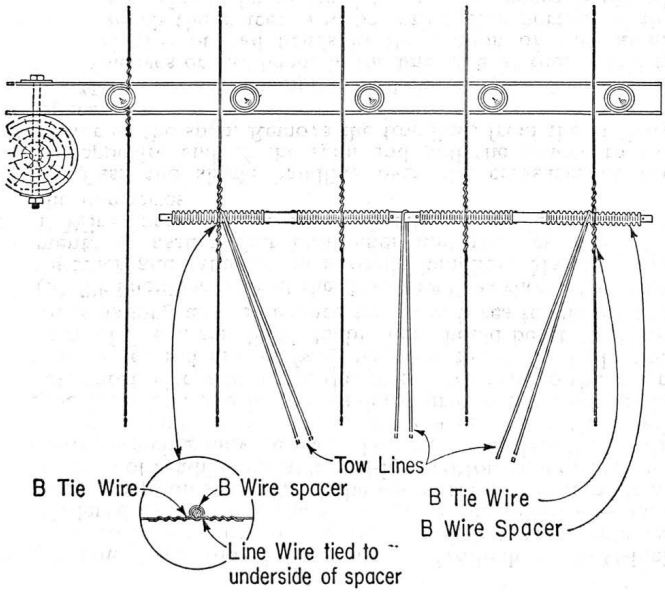
B WIRE SPACER

4. INSTALLATION OF B WIRE SPACER

4.01 The B Wire Spacer should be installed in the following manner:

(a) The line wires should be untied at the pole from which the work is to be performed, except when the spacing at the wire spacer is to correspond with the pin spacing at the crossarm. When used to maintain a specific wire spacing in a span between adjacent transposition poles, the B Wire Spacer should be installed before the transpositions are cut in.

(b) Using B Tie Wires, tie the line wires to the **underside** of the B Wire Spacer. Place the center loop of the tie wire in the proper groove of the insulator and wrap the ends of the tie wire around the line wire. For the normal 12-inch wire spacing, tie the wires at the center groove of each insulator. For other wire spacing combinations, the wires should be tied so that the ends of the B Wire Spacer will extend an equal distance beyond each side of the 4-wire group. The B Tie Wire should be handled carefully so that permanent bends or deformities will not be introduced in the tie wire.



(c) Tow lines should be made of 1/8-inch or 5/32-inch cotton sleeving, of the type used for cable splicing. (Ordered as —— pounds, sleeving, cotton, plain, —— in.—See description AT6839.) If the above sizes of cotton sleeving are not readily available, 1/2-inch cotton tape or 1/2-inch cotton sleeving may be used. Three suitable lengths of the cotton sleeving should be cut, and looped around the spool-type insulator, one in the insulator groove adjacent to the outermost wire, another in the groove adjacent to the innermost wire, and one halfway between the outer and inner pairs of line wires. Each double line should be at least two times as long as the distance from the wires to the ground.

(d) The doubled ends of the three tow lines should be joined together and attached to a single handline. Make adjustments to assure that both ends and the center of the B Wire Spacer will be pulled equally and at right angles to the line wires.

(e) Pass the single handline over the crossarm at the opposite end of the span and pull the spacer to the center of the span. Remove the tow lines from the B Wire Spacer.

Note: Do not attempt to pull the B Wire Spacer past sleeves or bad bends in the line wire. If there are any sleeves or bad bends in the section of wire along which the spacer is to be towed, that portion of the wire should be replaced before the spacer is placed, unless it is determined that the spacer can be pulled from the other end of the span without encountering sleeves.

(f) If the line wires have been detached from the glass insulators on the crossarm, they should be retied after the B Wire Spacer is located in its final position in the span.

4.02 The B Wire Spacer can also be installed directly at the center of the span by using a tower ladder truck, where the expense of using this equipment is justified by the amount of work to be performed, and where the terrain is suitable for the movement of the vehicle.