

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G22.120.3
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AT&T Co Standard

EQUIPPING CROSSARMS
WIRES POINT TRANSPOSED

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1. GENERAL

1.01 This section replaces Issue 1 and covers equipping crossarms which will carry wires that are point transposed.

1.02 This section is reissued to provide information on the 4-Inch Point Transposition Bracket and the B Pinch Bracket, and to specify the use of Hubbard 5704 Steel Pins and associated hardware when using the alternative method of making point transpositions on double crossarms.

2. TYPES OF BRACKETS

2.01 Point transposition brackets are of four types:

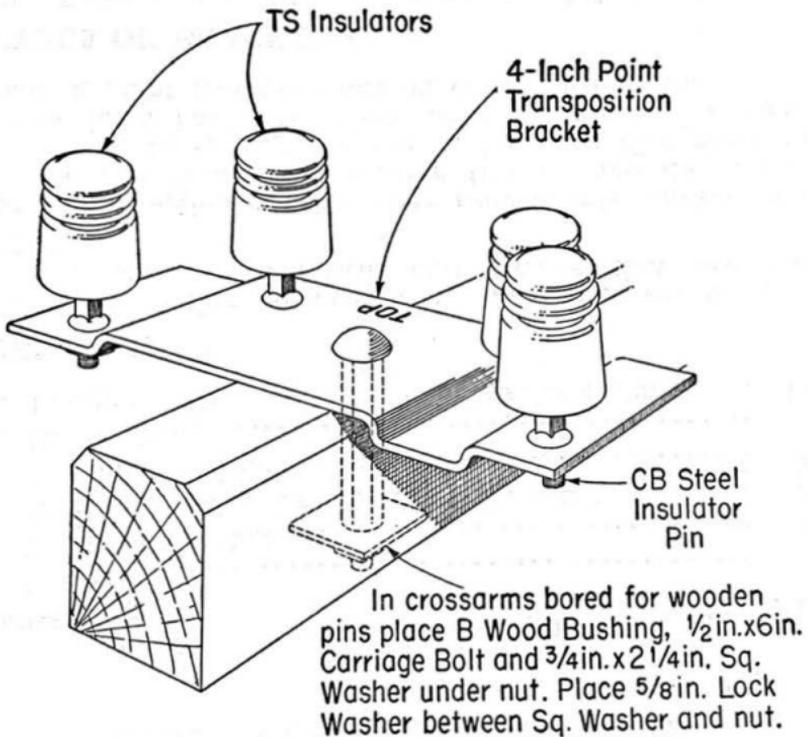
- (a) 4-Inch Point Transposition Bracket: For providing point transpositions with four-inch wire spacing at the transposition bracket.
- (b) 6-Inch Point Transposition Bracket: For transposing the wires of a pair having a wire spacing of six inches.
- (c) 8-Inch Point Transposition Bracket: For transposing the wires of a pair having a wire spacing of eight inches.
- (d) 12-Inch Point Transposition Bracket: For transposing the wires of a pair having a wire spacing of twelve inches.

2.02 B Pinch Bracket: This bracket is used to provide four-inch wire spacing at transposition poles where the wire is not transposed.

2.03 The type of transposition bracket to be used will be specified on the detail plans.

3. INSTALLING POINT TRANSPOSITION BRACKETS

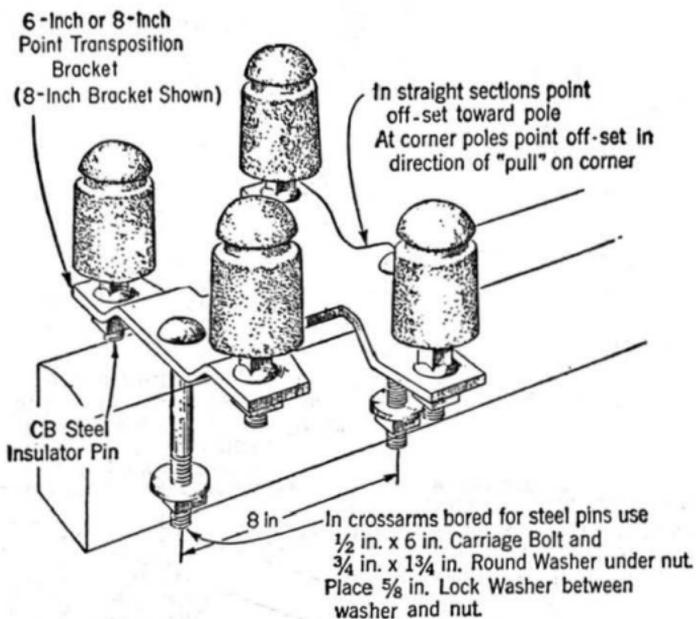
3.01 Install 4-Inch Point Transposition Brackets as shown in the following illustration.



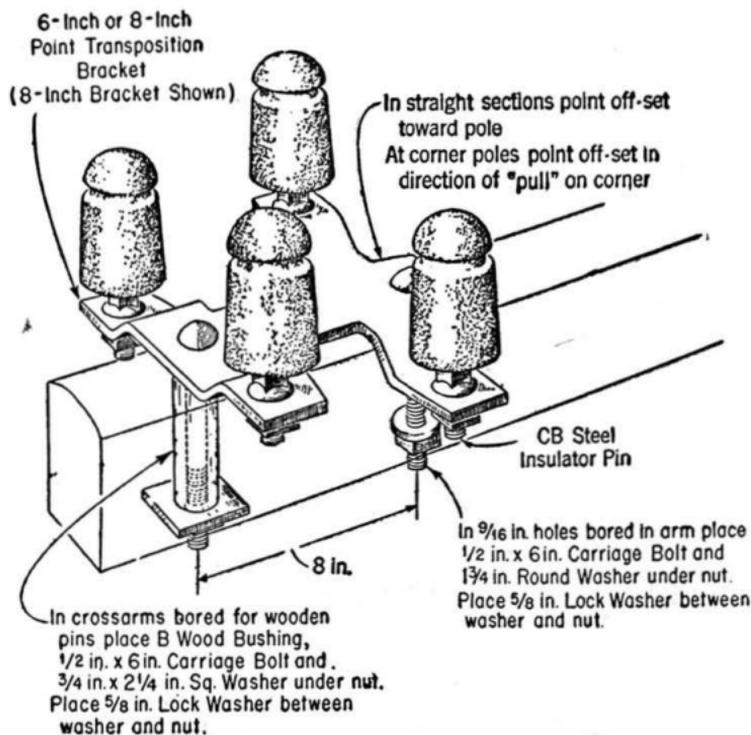
Note: At corner poles the bracket should be mounted with wide-spaced pins faced toward outside of corner.

3.02 Install 6-Inch and 8-Inch Point Transposition Brackets as shown in the following illustrations.

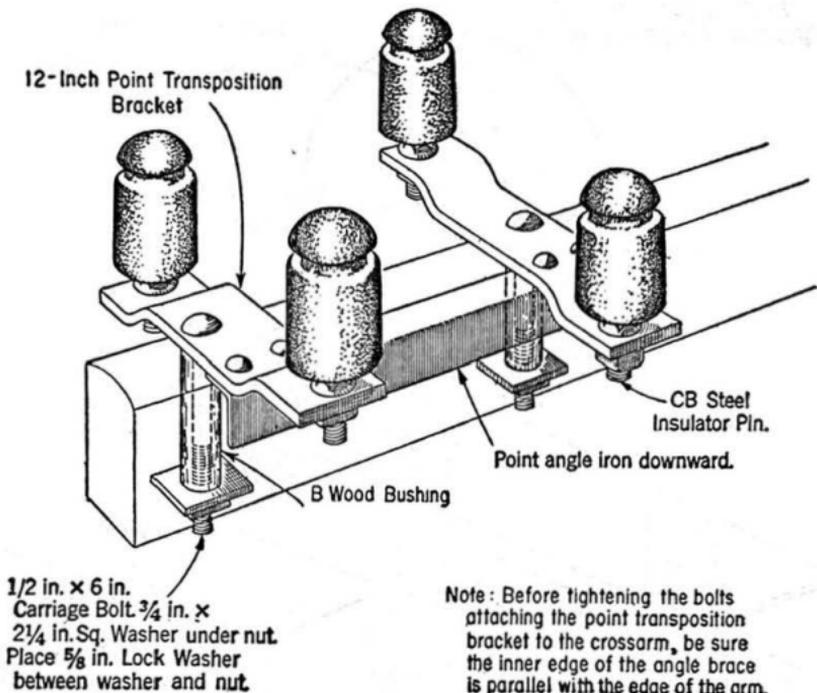
(a) When used on arm bored for steel pins.



(b) When used on arm bored for wooden pins.



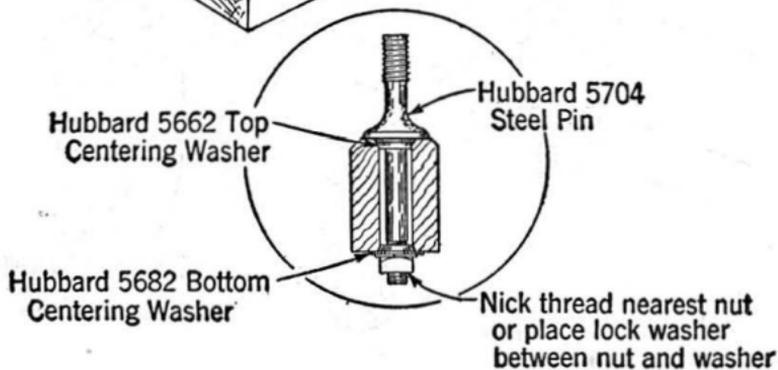
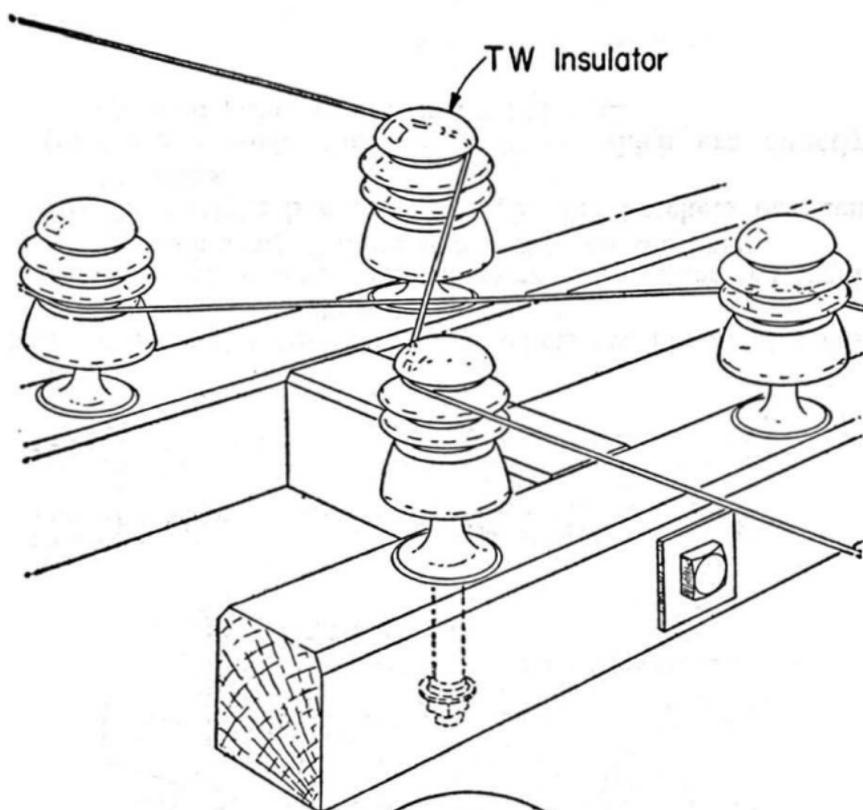
3.03 Install 12-Inch Point Transposition Brackets as shown in the following illustration.



3.04 When point transposition brackets are placed at poles which are double armed:

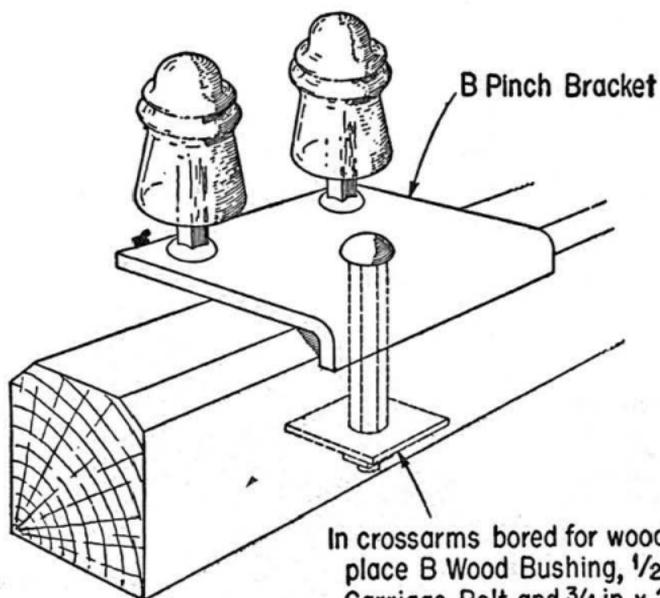
- (a) Place all brackets on the same arm (either the front or back arm) if there is a corner on the pole.
- (b) On straight line poles stagger the brackets between the arms.
- (c) Do not equip the pin positions which are directly opposite point transposition brackets.

3.05 The following method for making point transpositions⁴⁷ at double arms may be substituted for the 6-Inch, 8-Inch or 12-Inch Point Transposition Brackets.



4. INSTALLING B PINCH BRACKETS

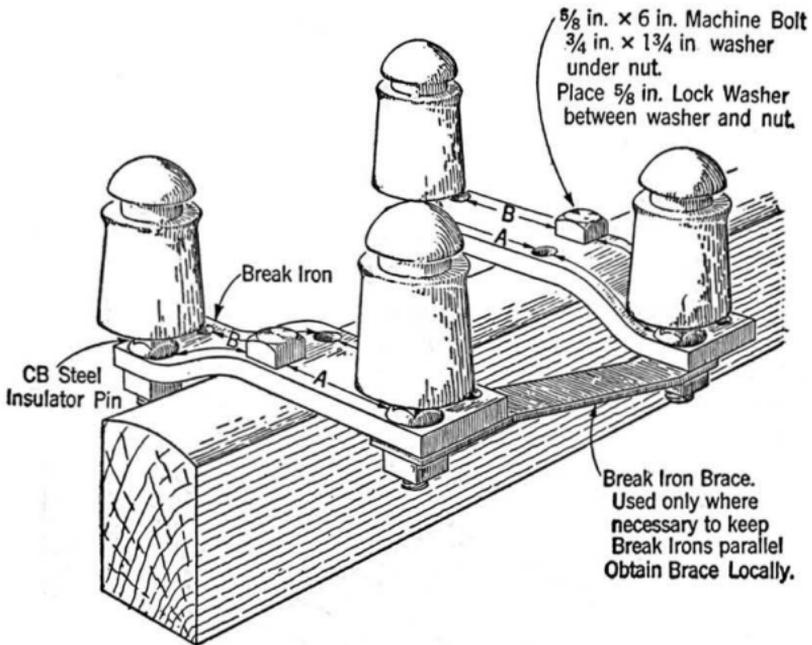
4.01 Install B Pinch Brackets as shown in the following illustration. Equip bracket with type A steel insulator pins.



In crossarms bored for wooden pins, place B Wood Bushing, $\frac{1}{2}$ in. x 6 in. Carriage Bolt and $\frac{3}{4}$ in. x $2\frac{1}{4}$ in. Sq. Washer under nut. Place $\frac{5}{8}$ in. Lock Washer between Sq. Washer and nut.

5. BREAK IRONS

5.01 Where point transpositions in existing lines have been made on break irons as illustrated, and the crossarm is to be replaced, reuse the break iron transposition unless otherwise specified.



5.02 Insulator pins in break irons and bolts for attaching the break irons to the crossarm shall be placed according to the following:

(a) In straight sections.

**Positions of Pins and Bolts in
Each Pair of Break Irons**

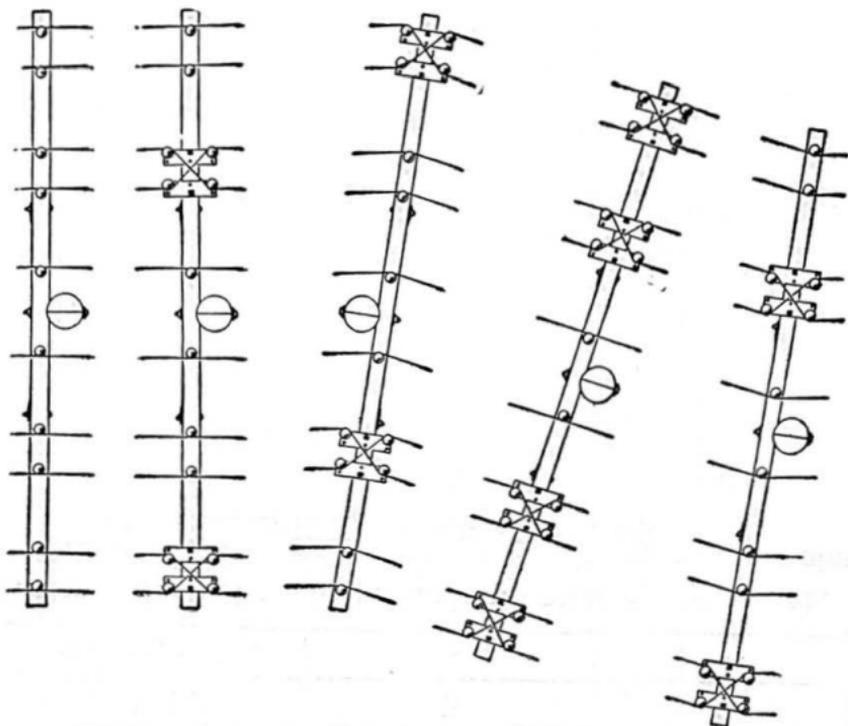
Position of Break Iron on Crossarm	Line of Attachment*	
	Insulator Pins	Bolt

8-Inch Spaced Wires		
Toward Pole	A	B
Away from Pole	A	A

12-Inch Spaced Wires		
Toward Pole	B	B
Away from Pole	B	A

*Letters refer to lines in illustration in preceding paragraph.

(b) At corners. Note changes in location of insulator pins and bolts, as shown in following sketch.



6. EQUIPPING BRACKETS WITH STEEL INSULATOR PINS

6.01 Equip transposition brackets with steel insulator pins as shown in the following:

Type of Bracket	Type of Steel Insulator Pin	
4-Inch Point Transposition Bracket	CB	←
6-Inch Point Transposition Bracket	CB	
8-Inch Point Transposition Bracket	CB	
12-Inch Point Transposition Bracket	CB	
B Pinch Bracket	A	←
Break Irons	CB	

Note: Information on Tandem Transposition Brackets may be found in other sections under that title.