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BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G32.126
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Provisional Standard

DROP AND BLOCK WIRING
CLEARANCE ATTACHMENT

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1. GENERAL

1.01 This section covers a clearance attachment for use on existing non-joint use poles, particularly of rural lines, where increased height is necessary to provide the clearance required for drop wires crossing highways or obstructions.

1.02 The clearance attachment should not be used to support more than one drop wire in one direction. Two drop wires may be attached, provided that the angle between the two drops would not be less than 120 degrees. The following method may be used to check this angle.

(1) Locate a point 50 ft. from the pole on the route of each drop wire.

(2) Measure the distance from the pole to an imaginary line joining these points. If this distance is greater than 25 ft. the angle is less than 120 degrees and two drop wires should not be attached to the fixture.

1.03 The clearance attachment should not be used to support drop wires crossing the tracks or associated parallel signal lines of steam or electrified railroads, except street railways.

1.04 It is not intended that the clearance attachment should be used on new poles in lieu of placing poles of sufficient length to provide the clearance required for the drop wires.

1.05 The clearance attachment should not be installed on poles of rural lines having circumferences of sound wood at the

ground line determined to be less than the values shown in the following table:

*Minimum Ground Line Circumferences in Inches

Pole Timber	Pole Spans Less Than 150 Feet			Pole Spans Greater Than 150 Feet					
	1-10 Line Wires			1-4 Line Wires			5-10 Line Wires		
	Heavy	Medium	Light	Heavy	Medium	Light	Heavy	Medium	Light
Northern White Cedar.	17	16	16	19	16	16	20	18	16
Western Red Cedar....	15	13	13	17	14	13	18	16	14
Chestnut.....	15	13	13	17	14	13	18	16	14
Creosoted Southern Pine.....	14	13	13	16	13	13	17	15	14

* These values are for 16 ft. poles in the heavy and medium loading areas and 30 ft. poles and shorter in the light loading areas. Increase one inch for each additional 5 ft. length of pole.

1.06 The minimum ground line circumferences required for poles in other than rural lines can be determined from the pole inspection tables as follows: Consider the drop wire to increase the actual wire load by 6 for heavy, 4 for medium and 3 for light loading areas and add one inch to the minimum circumference specified for the particular length pole and average pole span.

2. INSTALLING CLEARANCE ATTACHMENT

2.01 Prepare and install the clearance attachment, consisting of an unequipped 10 ft. crossarm or an equipped 10 ft. crossarm having the braces removed and the pins sawed off as outlined below:

(1) Where the first and second gains have not been cut in the pole, bore 11/16 in. holes at points 10 in. and 2 ft. 10 in. respectively, from the top of the pole. Measure the distance between centers of these holes on the back of the pole in order that the mounting holes to be bored in the clearance attachment may be similarly spaced.

(2) Select a crossarm bolt of sufficient length to extend approximately 5 in. beyond the back of the pole at the upper hole. Where the first gain is occupied, select a bolt 4 in. longer than the existing bolt.

(3) Place a 3/4 in. x 2-1/4 in. Sq. Washer on the bolt and drive it fully into the upper hole from the face of the pole. Where the gain is occupied, remove nut and washer of the existing bolt and drive it out with the longer bolt.

(4) Select a second crossarm bolt and install it in the lower hole in a similar manner, except drive it in only far enough to extend approximately 2 in. beyond the back of the pole.

(5) Bore two 11/16 in. holes through the short dimension of the crossarm, as illustrated in Paragraph 4.01, one at a point 10 in. from the end and the second at the same distance from the center of the first hole as the distance between centers of the two holes in the pole.

(6) Bore a 9/16 hole through the short dimension of the crossarm at a point 8 in. from the end opposite to the previously bored holes.

(7) Install a Guard Arm Hook in this hole so that the hook will be on the pole side of the clearance attachment with the opening at the top.

(8) Install E Bridle Rings approximately two feet apart along the top or bottom of the crossarm, depending upon the location of the bridging point, as illustrated in Paragraph 4.01.

(9) Attach handline to the crossarm at a point above the center by means of a clove hitch, climb pole and, facing the back of the pole at the first gain, haul up the crossarm by hand.

(10) Grasp the crossarm with one hand at the top mounting hole, guiding the upper portion with the other hand, and place the crossarm first over the upper bolt and then over the lower bolt.

(11) Drive the lower bolt fully into the pole.

(12) Place a 3/4 in. x 2-1/4 in. Sq. Washer and the nut on each of these bolts. Turn the nut firmly into place with a wrench.

(13) Remove handline from the crossarm.

3. ATTACHING DROP WIRE

3.01 The drop wire preferably should be dead-ended first on the clearance attachment as outlined below, in order to minimize the load to be handled at that point:

(1) While on the ground, place a drop wire clamp on the wire at a distance from the free end which will allow sufficient wire to extend down the clearance attachment and to the bridging point.

(2) Attach handline to drop wire at the clamp and throw the free end of the line over the wires of the top crossarm or brackets so that it can be reached from the pole.

(3) Climb pole and haul up the drop wire by hand.

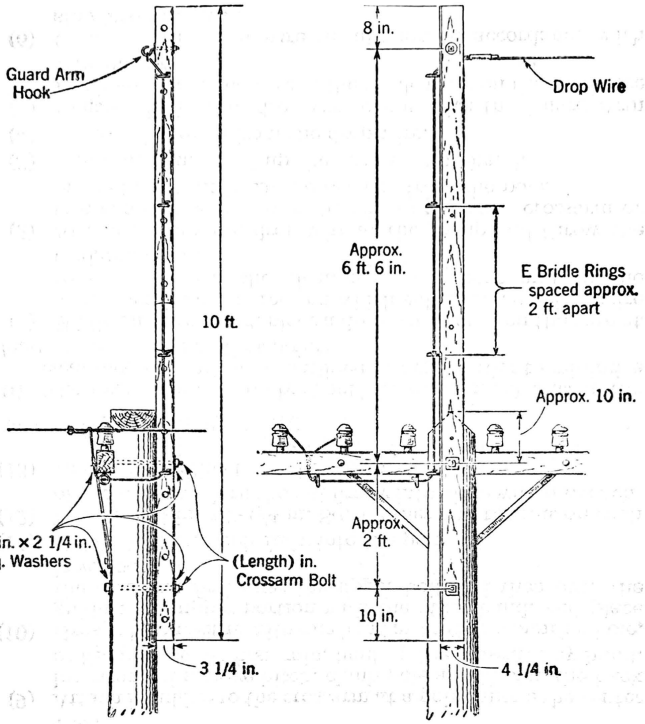
(4) Remove handline from the drop wire.

(5) Engage the loop of drop wire clamp with the Guard Arm Hook and place the wire in the bridle rings on the clearance attachment.

(6) Complete the drop wire installation in accordance with standard practices.

4. TYPICAL INSTALLATION

4.01 A typical installation of the clearance attachment is shown below:



5. PRECAUTIONS

5.01 When any work is to be done on drop wire at a clearance attachment, it should be temporarily detached from the clearance attachment after a test has been made to determine if this fixture is sufficiently strong to be relied upon for support in removing the wire. Testing of the clearance attachment, however, should follow any precautions required to be taken to assure that the pole is safe for climbing.

5.02 The clearance attachment may be considered safe if it does not crack or break when subjected to the following test:

(1) Make a single bowline at one end of the handline to form a loop which will fit loosely over the top of the clearance attachment.

(2) Place this loop over the top of the clearance attachment so that it will be supported above the Guard Arm Hook. This should be done from a position on the ground or, if necessary, from the pole, using a Wire Raising Tool fitted into the socket of the tree pruner extension section.

(3) Take up a position in the line of poles and at a distance from the back of the pole approximating the height of the Guard Arm Hook above ground.

(4) Pull vigorously on the handline. If the clearance attachment cracks or breaks, it should be replaced before the workman relies upon it for support.