**BELL SYSTEM PRACTICES**
**Outside Plant Construction and Maintenance**

**SECTION G32.125.1**
**Issue 1, November, 1951**
**AT&T Co Standard**

# DROP AND BLOCK WIRING
## POLE-TO-BUILDING AND POLE-TO-POLE RUNS

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## 1. GENERAL

1.01 This Section replaces Section G32.125, Issue 2. It covers the methods of making pole-to-building and pole-to-pole runs of drop wire. Drops from open wire lines are covered in another section of these Practices.

1.02 The requirements applying to clearances between telephone wires and foreign wires and equipment, clearances above ground and climbing space on jointly used poles shall be observed in running drop wires.

1.03 Stringing operations related to the procedures described herein are covered in other sections of the Drop and Block Wiring Practices.

1.04 Drop wire should be strung to normal stringing sags unless ground clearances make it necessary to use the minimum stringing sags as outlined in the section on Stringing Sags for Drop Wire.

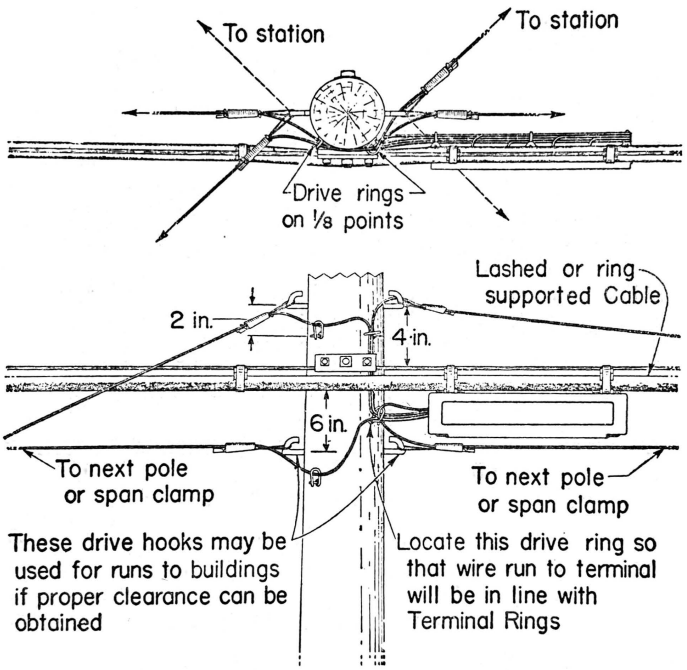
## 2. DISTRIBUTING DROPS FROM TERMINAL POLES

2.01 **At terminal poles not requiring guard arms.** Distribute drop wires from drive hooks placed on the face or back of poles. On pole-to-building spans, use drive hooks located

above the suspension strand. On spans from pole-to-pole and from pole-to-span clamp, use the drive hook located below the cable. Pass the drop wire through the drive hook only in case no sharp bends will be placed in the wire.

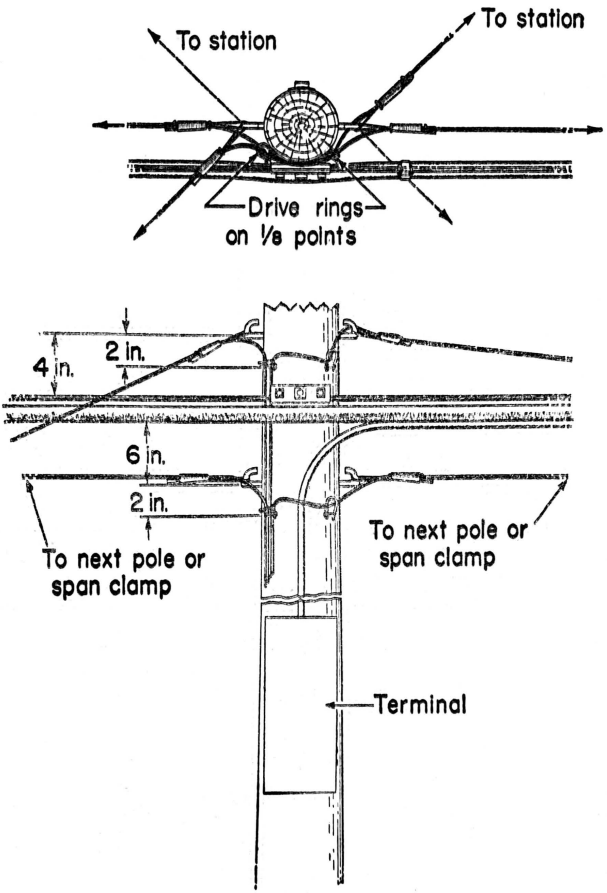
2.02 The wiring arrangements for strand mounted and pole mounted terminals are indicated in the following illustrations:

(a) **Strand mounted terminal**

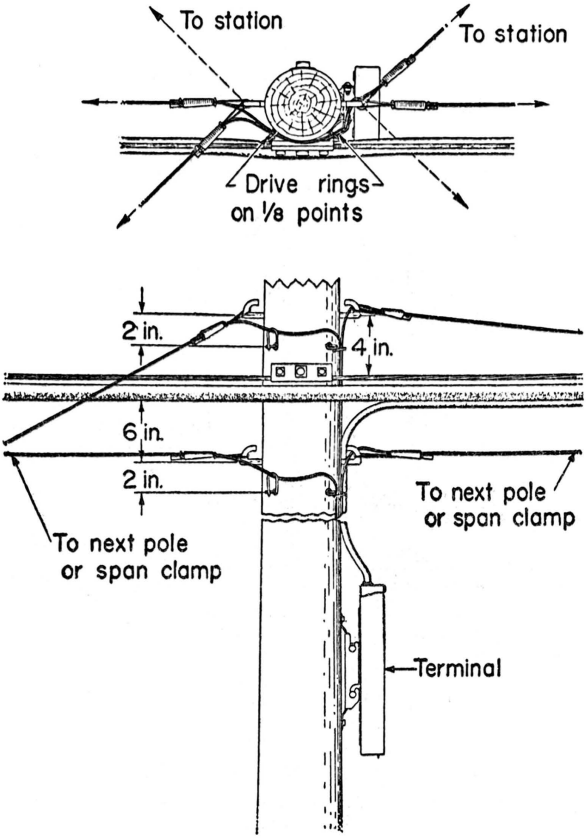



Note:- Transpose arrangement shown above, when terminal is located on left side of pole.

(b) **Terminal mounted on cable side of pole**



(c) **Terminal mounted on face or back of pole**



2.03 Run wiring on pole in a neat manner and with enough slack to avoid sharp bends at fixtures. Where drop wire passes through a drive hook, provide slack in the form of a smooth curve.

2.04 **At terminal poles requiring guard arms** follow the procedures covered in the section on "Pole and Guard Arm Attachments."

## 3. DROP WIRE RUNS ALONG THE LEAD

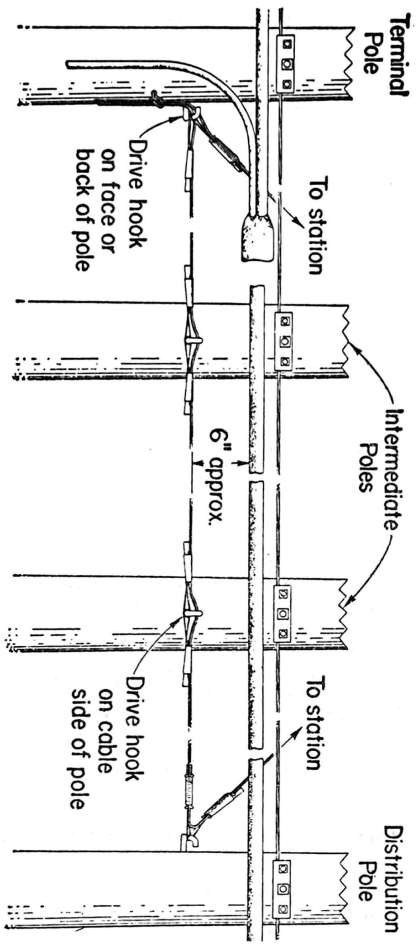
### General

3.01 Observe local instructions as to the maximum number of drops and the permissible length of drop wire run.

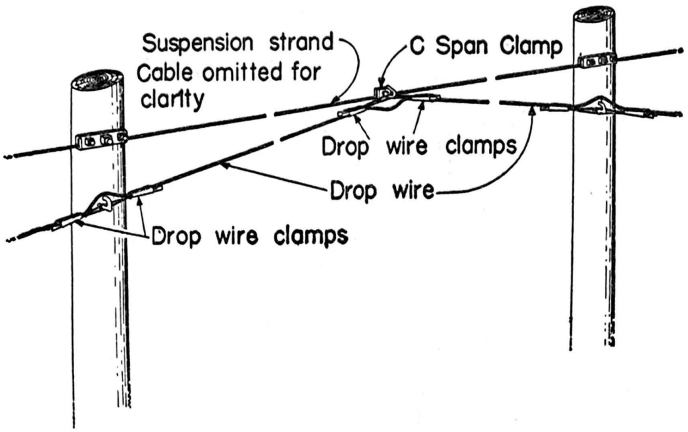
3.02 Attach drop wire runs to poles along the lead by means of drive hooks. However, existing pole brackets may be used if they are located as specified for drive hooks.

### Lead Carrying Aerial Cable

3.03 Run drop wire below the cable as shown in the following illustration:



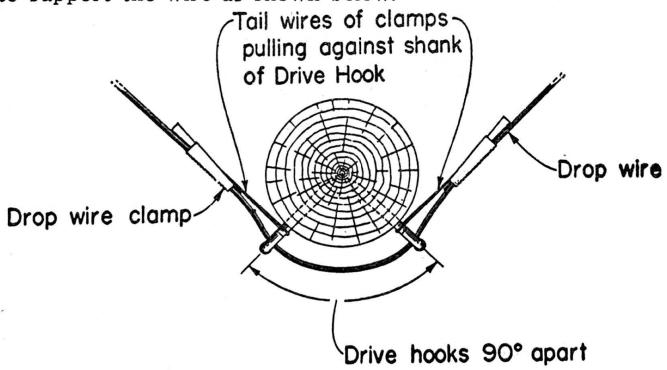

3.04 Where required ground clearances in the span can not be obtained with wire strung at minimum sag then one or more intermediate strand pickups can be used to reduce wire sag as illustrated below.




3.05 Where the procedure indicated in Paragraph 3.04 fails to provide the required ground clearance, then the drop wire may be placed **above** the suspension strand. Locate drive hooks at such height that the drop wire does not whip against the strand or cable and proper joint use clearances are obtained.

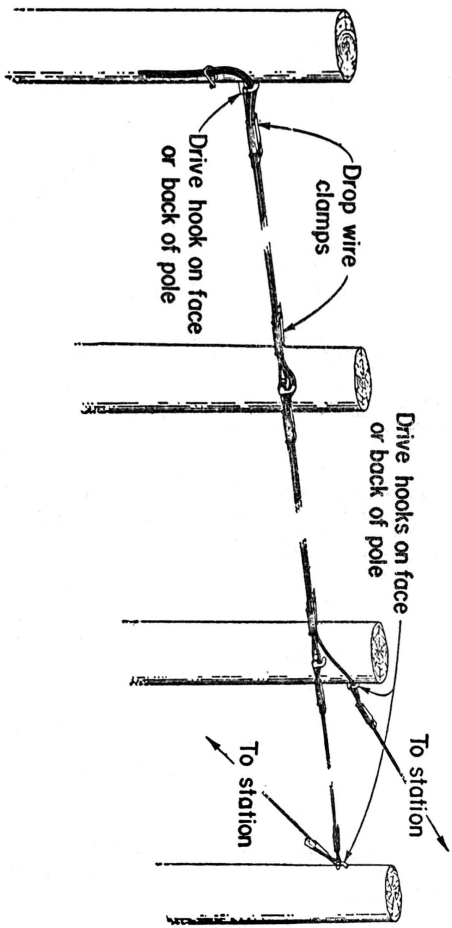
3.06 On straight line poles or inside corner poles where the pull of the wire is away from the pole, use a single drive hook to support the drop wire.

3.07 On outside corner poles where the angle will cause the drop wire to rub against the pole, use two drive hooks to support the wire as shown below.



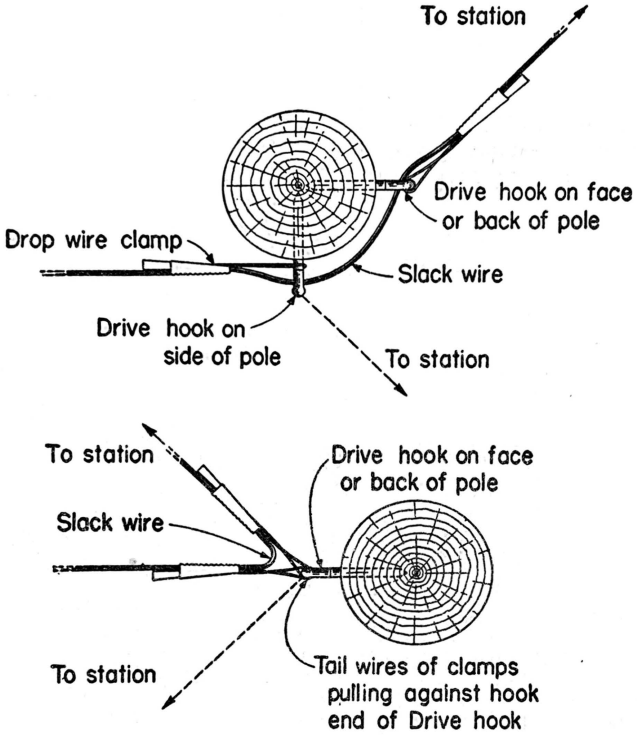
**Lead Not Carrying Aerial Cable**

3.08 Run drop wires as illustrated below:



**Distributing Wires from Pole Other Than Terminal Pole**

3.09 Distribute drop wires as illustrated below:




3.10 On jointly used poles or poles which are likely to become jointly used, drop wires may be distributed from guard arm hooks where a guard arm is required to provide proper climbing space.

## 4. PARTY LINE TAPS IN RUNS ALONG THE LEAD

**Tap at Intermediate Point**

4.01 To make an intermediate party tap along the lead, proceed as follows:

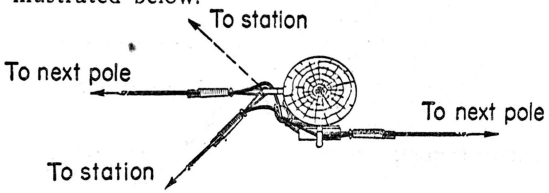
(1) Install a 101A wire terminal on the pole directly below the drive hook.

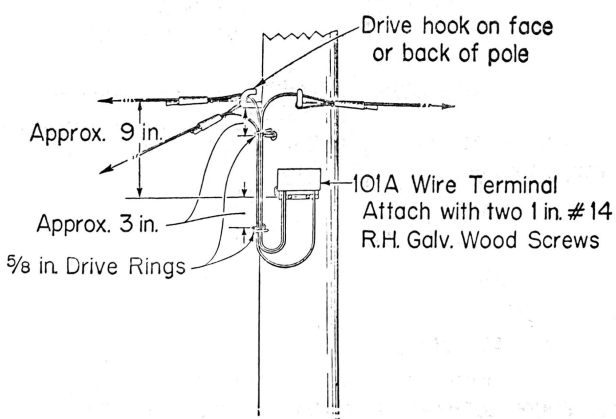
(2) Place a second drive hook on the face or back of the pole at the same level as the existing hook supporting the through drop wire.

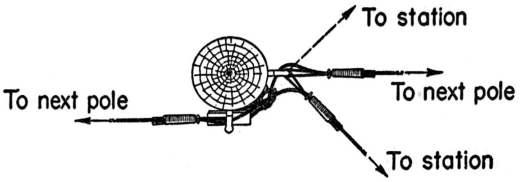
(3) After testing to make sure the line is not in use, cut the drop wire on the second drive hook side of the pole about 2 feet from the first drive hook. The Drop Wire Puller can be used to hold the wire before the cut is made.

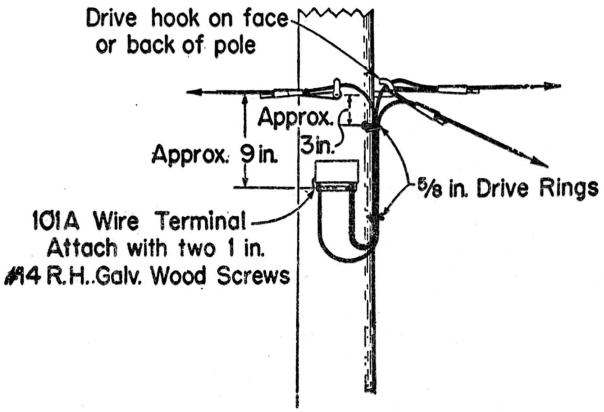
(4) Splice an extra length of wire to the short end of the through drop wire supported by the drop wire puller. Install a drop wire clamp on the spliced wire and place it on the new drive hook on the face or back of the pole.

(5) Place drive rings on pole, run the wire through them and terminate the two ends of the through drop wire on the binding posts of the 101A wire terminal. Terminate the bridging drop wire in the 101A wire terminal above the through wire terminations. The complete party line tap is illustrated below.






**Tap at End of Run**

4.02 **If the drop wire run along the lead is to be extended** to an additional station proceed as follows:

(1) Place a 101A wire terminal on the pole and cut the existing subscriber circuit into it.

(2) Terminate the drop wire extension in the 101A wire terminal to make the bridging connection.

(3) Splice out the existing drop loop and terminate it in the wire terminal. The complete arrangements are similar to those shown in Paragraph 4.01 (5).

4.03 In disconnecting a party line tap, lift its termination in the 101A wire terminal and tape the exposed end of each conductor. Bend the free end of the wire back upon itself about the lower ring and tape securely to the supporting wire.

## 5. RUNNING DROP WIRE PAST CABLE TERMINALS

5.01 Avoid drop wire runs past a cable terminal by endeavoring to obtain a reassignment to a nearer terminal.

5.02 Where a disconnected drop wire passing a terminal is to be reused, obtain an assignment to the nearer terminal if practicable.

## 6. ATTACHING DROP WIRE TO METAL TROLLEY OR STREET LIGHTING POLES

6.01 **Drop wire attachments to metal trolley, traffic signaling or street lighting poles should be avoided.** However, if it is unavoidable, refer the case to your supervisor for specific approval before attachments are made.

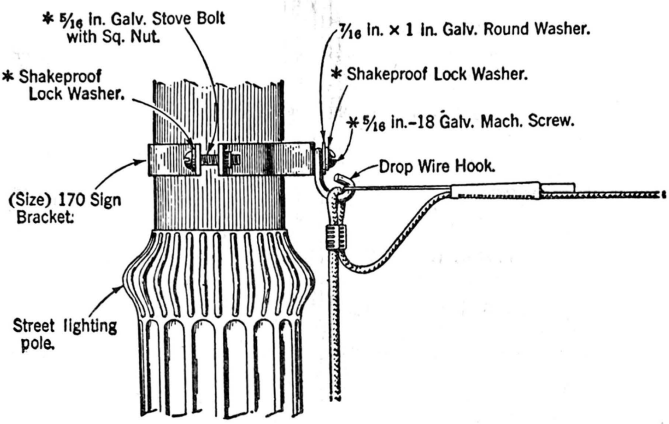
**Installation**

6.02 **Attach drop wire** to metal street lighting, traffic signaling or trolley pole by means of a drop wire hook fastened to a Type 170 or 188 Sign Bracket as illustrated.

**The diameter of pole determines** the type of sign bracket to be used, as follows:

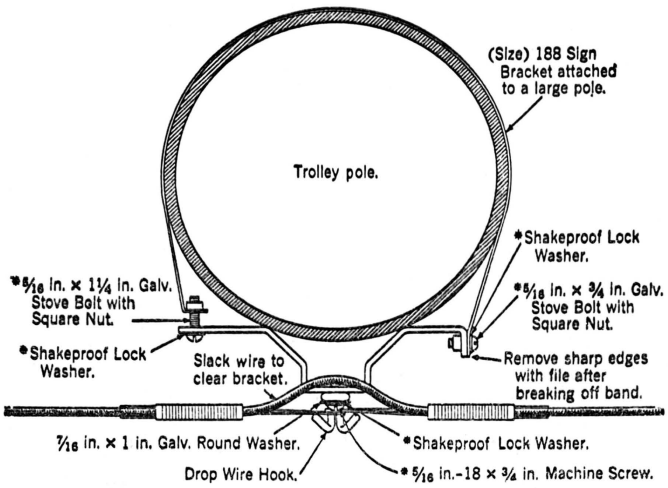
| Diameter of Pole | Type of Sign Bracket |
|---|---|
| 1-7/8 to 3 inches | 2-170 Sign Bracket |
| 3 to 4 " | 3-170 " " |
| 4 to 5 " | 4-170 " " |
| 5 to 8 " | 6-188 " " |
| 8 to 12 " | 10-188 " " |

## Attachment to Type 170 Sign Bracket

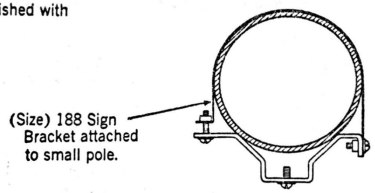



* These items are furnished with the Sign Bracket.

## ATTACHMENT TO TYPE 188 SIGN BRACKET




*These items are furnished with the sign bracket.



6.03 **The principal points to be observed in installing the Type 188 Sign Bracket** are as follows:

(1) Attach the perforated band to the straight end of the bracket leaving the nut at the end of the 1-1/4-inch Stove Bolt.

(2) Place the bracket against the pole, wrap the band snugly around the pole and attach the free end to the bracket, inserting the 3/4-inch Stove Bolt in the nearest hole.

(3) Tighten the 3/4-inch bolt securely and then tighten the 1-1/4-inch bolt as much as possible without stripping the threads or bending the bracket excessively. If the bracket is not secure after the 1-1/4-inch bolt has been tightened, back off the nut to the end of the bolt, relocate the 3/4-inch bolt to the next hole to take up the slack in the band and then retighten the 1-1/4-inch bolt.

(4) Remove the excess length of the band by bending it back and forth until it breaks at the bracket. Remove sharp edges of break with a file.

6.04 **Only one drop wire** shall be attached to a sign bracket.