

**OPEN WIRE
 BRIDLING RUNS**

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1. GENERAL

1.01 The information in this section and in 623-300-202 was formerly contained in G31.135, Issue 2. Section G31.135, Issue 2 and Addendum G31.135, Issue 1 are hereby canceled.

1.02 The types of wire used for bridling open wire circuits depend upon the type of facility involved and are as follows:

- For Toll Circuits—AL Wire
- For Exchange Circuits—HD Wire (see 1.03).

1.03 In exchange circuits block wire may be run between the protector mounting and the cable terminal. Also, in exchange circuits block wire may be run between the open wire and the cable terminal if the length of open wire is such that protection is not required.

1.04 AL and HD wire each consist of a twisted pair of insulated .064" diameter (No. 14 A.W.G.) copper conductors. The conductors of AL wire are annealed, those of HD wire are hard drawn. The mutual capacity of AL wire is considerably lower than that of HD wire. Therefore, because of its lower transmission losses AL wire is preferable in toll plant but as its strength is less than HD wire it is not suitable for use in a span between poles.

1.05 The following chart gives the maximum number of pairs of insulated wire that may be run in drive rings and bridle rings.

Size of Drive Ring	Size of Bridle Ring	Maximum Number of Pairs		
		AL Wire	HD Wire	Block Wire
5/8"	7/8"	1-3	1-4	1-9
7/8"	1-1/4"	4-8	5-11	10-22
1-1/4"	1-5/8"	9-14	12-18	23-40
—	3"	Over 14	Over 18	Over 40

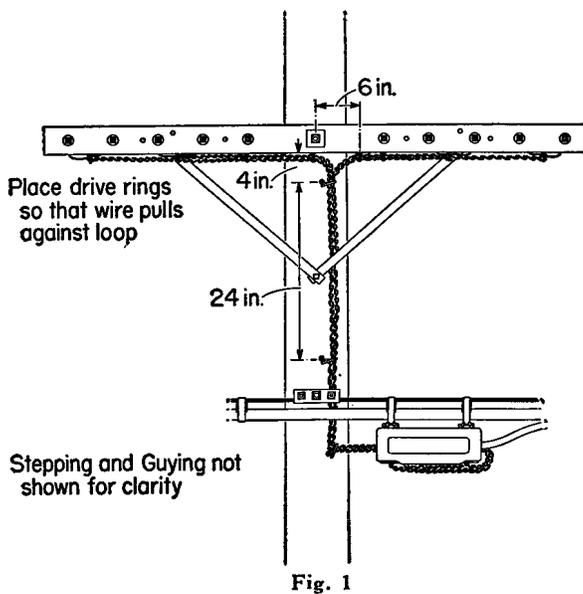
1.06 The following are a few suggestions for making bridling runs:

- (a) When practicable, maintain a separation of two inches from all grounded fixtures.
- (b) Avoid sharp curves at rings, brackets and on the line wires.
- (c) Avoid splices in new bridle runs.

2. TO CABLE TERMINALS

2.01 When sheath mounted, protected terminals are used or no protection is required, make the bridling run as shown in Fig. 1.

Note: Place drive rings so that bridling runs will clear crossarm braces, strand and other pole attachments.



2.04 When EA cable terminals are used make the bridling run as shown in Fig. 4.

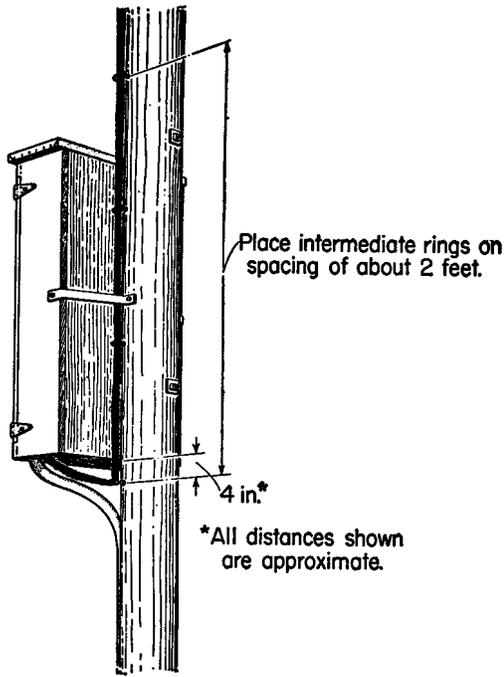


Fig. 4

3. BETWEEN LINE WIRES

3.01 At buck arm locations make the bridling run as shown in Fig. 6.

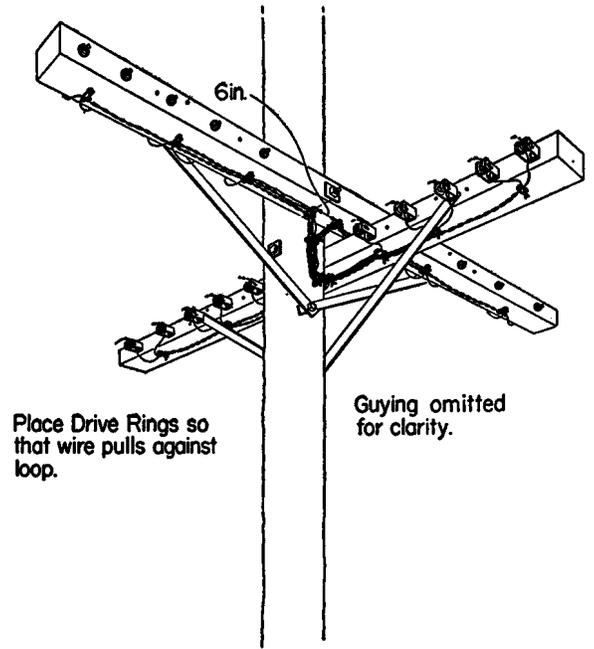


Fig. 6

2.05 When 83-A Protector Mountings are placed along the open wire route for additional cable protection make the bridling run as shown in Fig. 5.

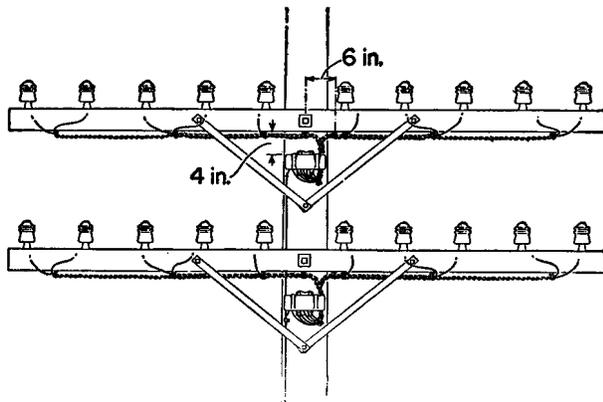


Fig. 5

3.02 101A Wire Terminals may be placed at test points. They should be located as shown in Fig. 7.

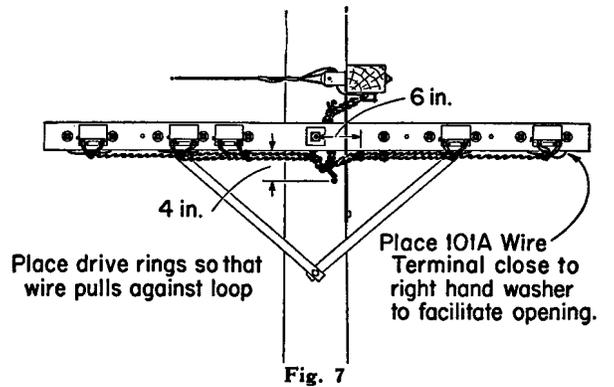


Fig. 7

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3.03 As an alternative to the 101A Wire Terminals an 83A Protector Mounting without protector blocks may be used as a connector terminal. See Fig. 8.

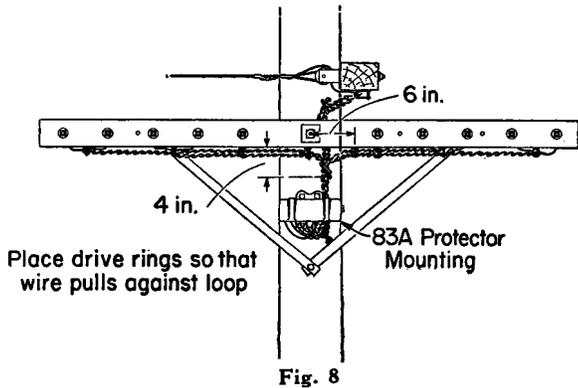


Fig. 8

3.04 If a wire terminal is not installed at a test point the need for opening the bridling connection for tests can be avoided by using the directional fault locating equipment.

3.05 When the line wires are dead-ended on the pole make the bridling run as shown in Fig. 9.

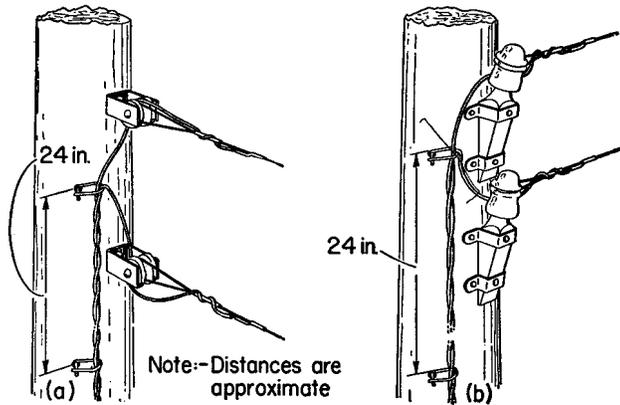


Fig. 9

3.06 A piece of line wire may be used to make the bridling run as shown in Figs. 10 and 11 if the vertical distance is not more than indicated. This method may also be used on the inside of the corner at buck arm corners.

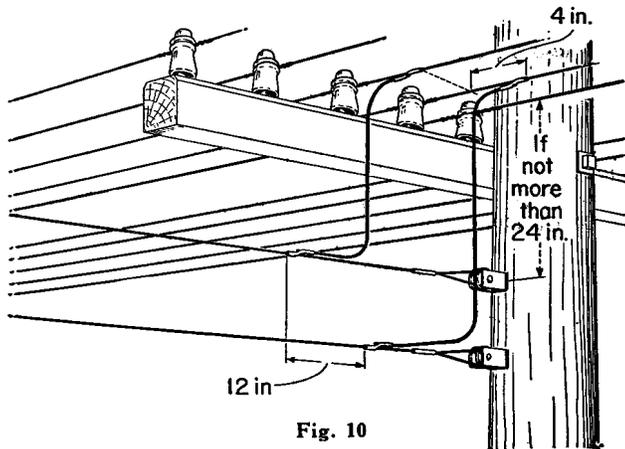


Fig. 10

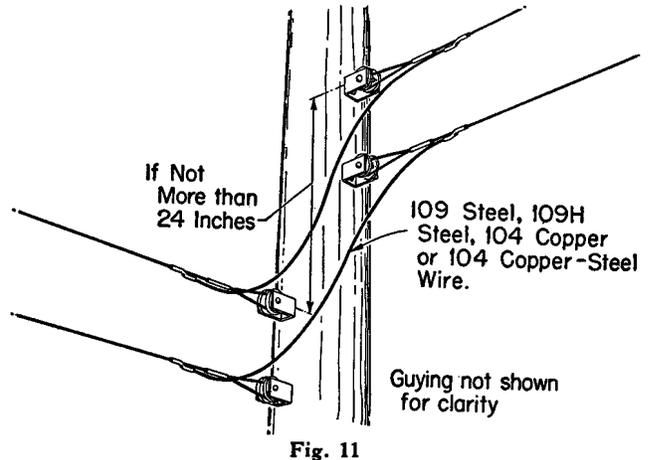


Fig. 11

4. BETWEEN POLES

4.01 When a side lead is to be connected to the main line by a span of insulated wire make the run as shown in Fig. 12.

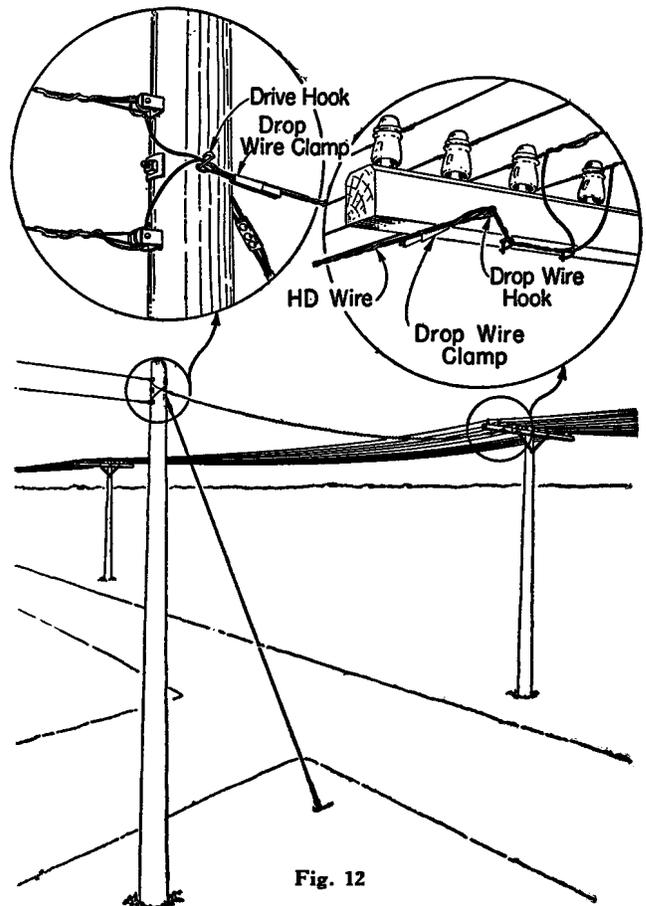


Fig. 12

4.02 Use HD wire for the span. Use a drive hook and drop wire clamp at the side lead pole. Use a drop wire hook and drop wire clamp at the main line crossarm. If the span is to be terminated on the pole instead of the crossarm use a drive hook instead of the drop wire hook.