

C RURAL WIRE TERMINATING

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parallel to the top face of the blocks. Align the terminal blocks and with one hand squeeze the two blocks together, as shown in Fig. 2, while the nuts are tightened with a 216-type tool. Tighten both nuts so the two blocks are held together firmly to ensure a good contact between the conductor and the insulation piercing contact points.

1. GENERAL

- 1.01 This section describes the methods of terminating C rural wire.
- 1.02 This section is reissued to include information on the FC-14L plastic cap and to show drive rings replaced by bridle rings at wire runs on poles.
- 1.03 The 0.064 gauge conductors on the 118B protectors are designed for termination in 101- or 107-type wire terminals.

2. INSTALLATION OF 107-TYPE WIRE TERMINALS

- 2.01 Remove the flexible neoprene cover by grasping the projections under the blocks between thumb and index finger as shown in Fig. 1. Twist the cover out of its locked position and when loosened, pull the cover off the blocks.
- 2.02 With the small end of a 216-type tool, loosen the nuts holding the blocks together. The blocks must be wide enough apart to permit the C rural wire to be inserted between them. Do not remove the nuts or washers from the stud.
- 2.03 With the blocks held apart, place the terminal on the C rural wire so the narrow surface of the wire slips between the blocks. When the wire is in the groove between the blocks, rotate the terminal so the wide surface of the wire is

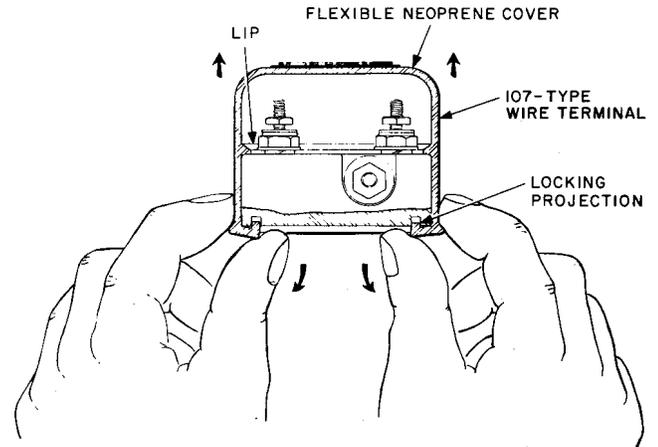


Fig. 1—Removing Cover

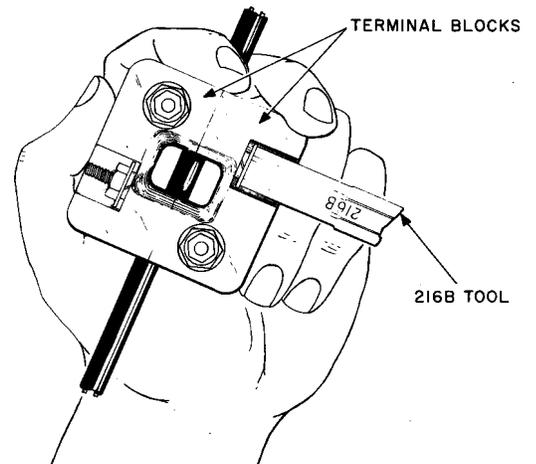


Fig. 2—Placing Blocks on C Rural Wire

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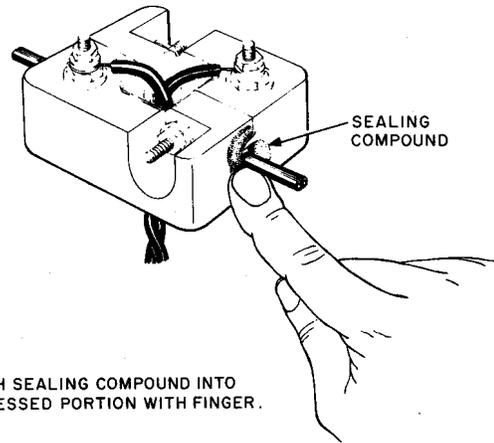
2.04 Take the sealing compound which is supplied with the terminal and work it around the C rural wire and into the recessed portion of the terminal block as shown in Fig. 3. Seal both ends of the terminal blocks.

2.05 Bring the bridle wire, block wire, or protector wire through the hole in the center of the blocks from the bottom as shown in Fig. 4 and fasten to the binding posts in the usual manner. Space is provided for terminating two wires on each binding post, if required.

2.06 Place the cover over the terminal and push down into place. Be sure the lip on the inside of cover is brought down to the top face of blocks and the locking projections are brought under the terminals and into the locking slots on the underside of the terminal blocks. The cover should fit snugly around the C rural wire at both ends.

3. TERMINATIONS AT DEAD-END AND INTERMEDIATE POLES

3.01 C rural wire may be terminated at the feeder end or the far end in a 107A2 wire terminal as shown in Fig. 5 or 6. Cut the end of the wire as shown in Fig. 5 and cap with an FC-14L plastic cap. Turn the end of the wire up and lap with vinyl tape to hold in place. At least 2 feet of D or E block wire, with 16 inches vertical shall be used between the 107A2 wire terminal on the rural wire and the 101B2 wire terminal on the pole to serve as a fusible link between the C rural wire and the subscriber drop wire.



NOTE:
PUSH SEALING COMPOUND INTO
RECESSED PORTION WITH FINGER.

Fig. 3—Placing Sealing Compound

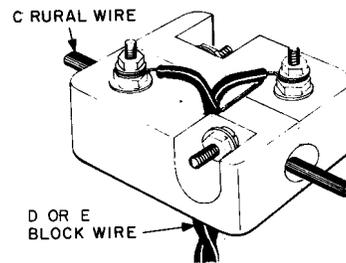


Fig. 4—Wire Terminated on Binding Posts

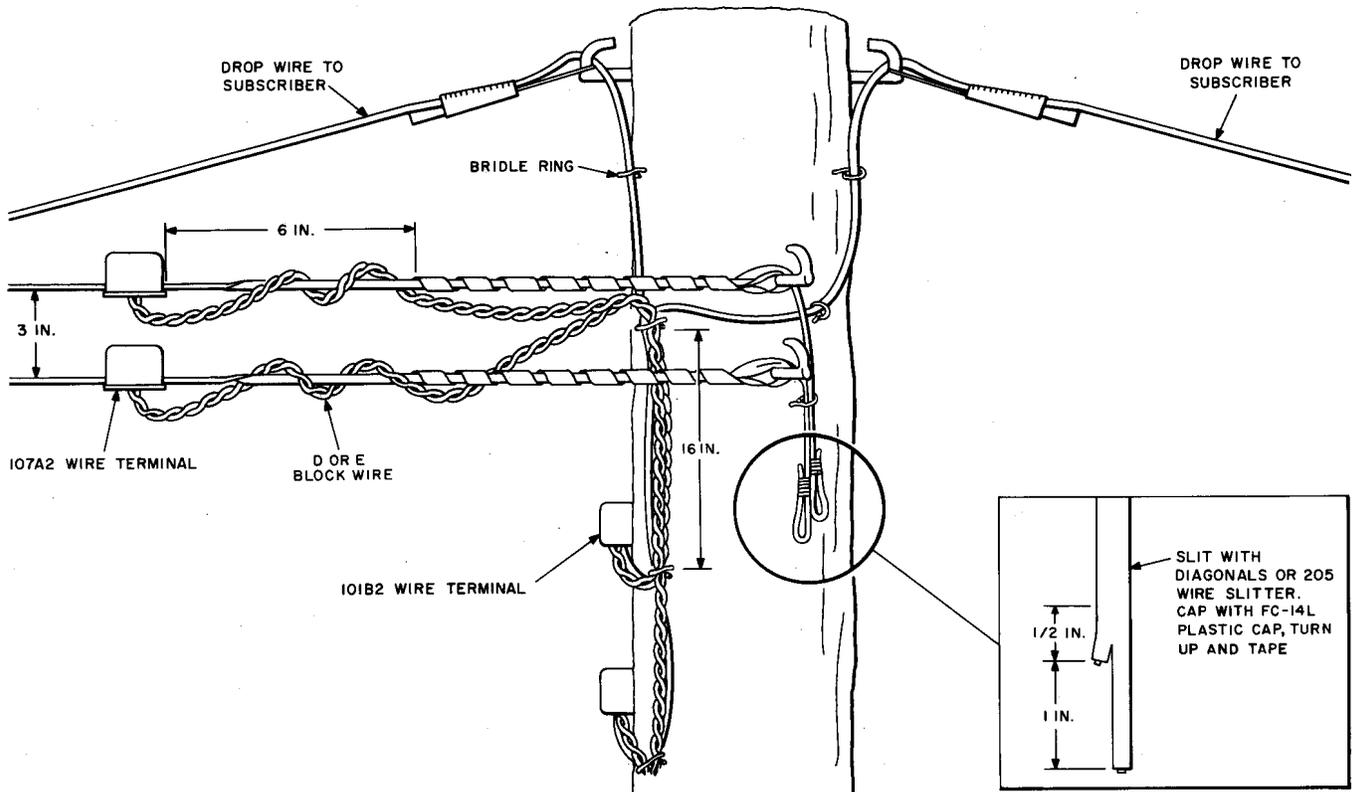


Fig. 5 → Deadending C Rural Wires on Drive Hooks ←

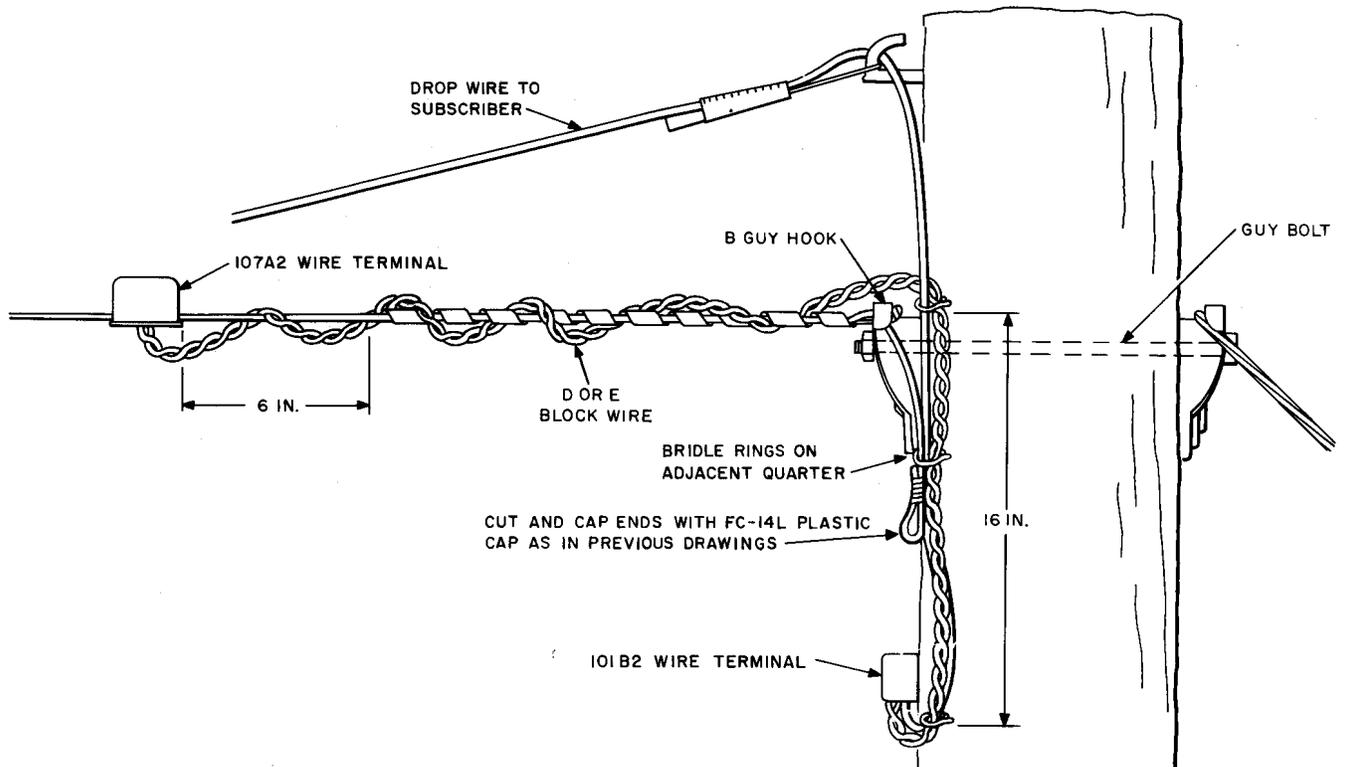


Fig. 6 → Deadending C Rural Wire on B Guy Hook ←

3.02 C rural wire may also be terminated in a 101B2 wire terminal as shown in Fig. 7. At least 2 feet of D or E block wire shall be used between the 101B2 wire terminals to serve as a fusible link between the C rural wire and the subscriber drop wire.

3.03 To serve one or more stations from an intermediate pole, 107A2 wire terminals may be placed as shown in Fig. 8. At least 2 feet of D or E block wire, with 16 inches vertical shall be used between the 107A2 wire terminal and the 101B2 wire terminal to serve as a fusible link between the C rural wire and the subscriber drop wire.

4. USE OF 118B PROTECTORS ON C RURAL WIRE

4.01 Install 118B protectors (Fig. 9) on C rural wire only at those designated locations specified by detail plans or other instructions from the plant engineer; however, at any designated location with more than one C rural wire, a 118B protector is required for each C rural wire.

4.02 C rural wires which are carried on higher voltage joint-use poles for a distance of 1000 feet or less do not require 118B protectors. This applies to power lines with or without a multigrounded neutral wire.

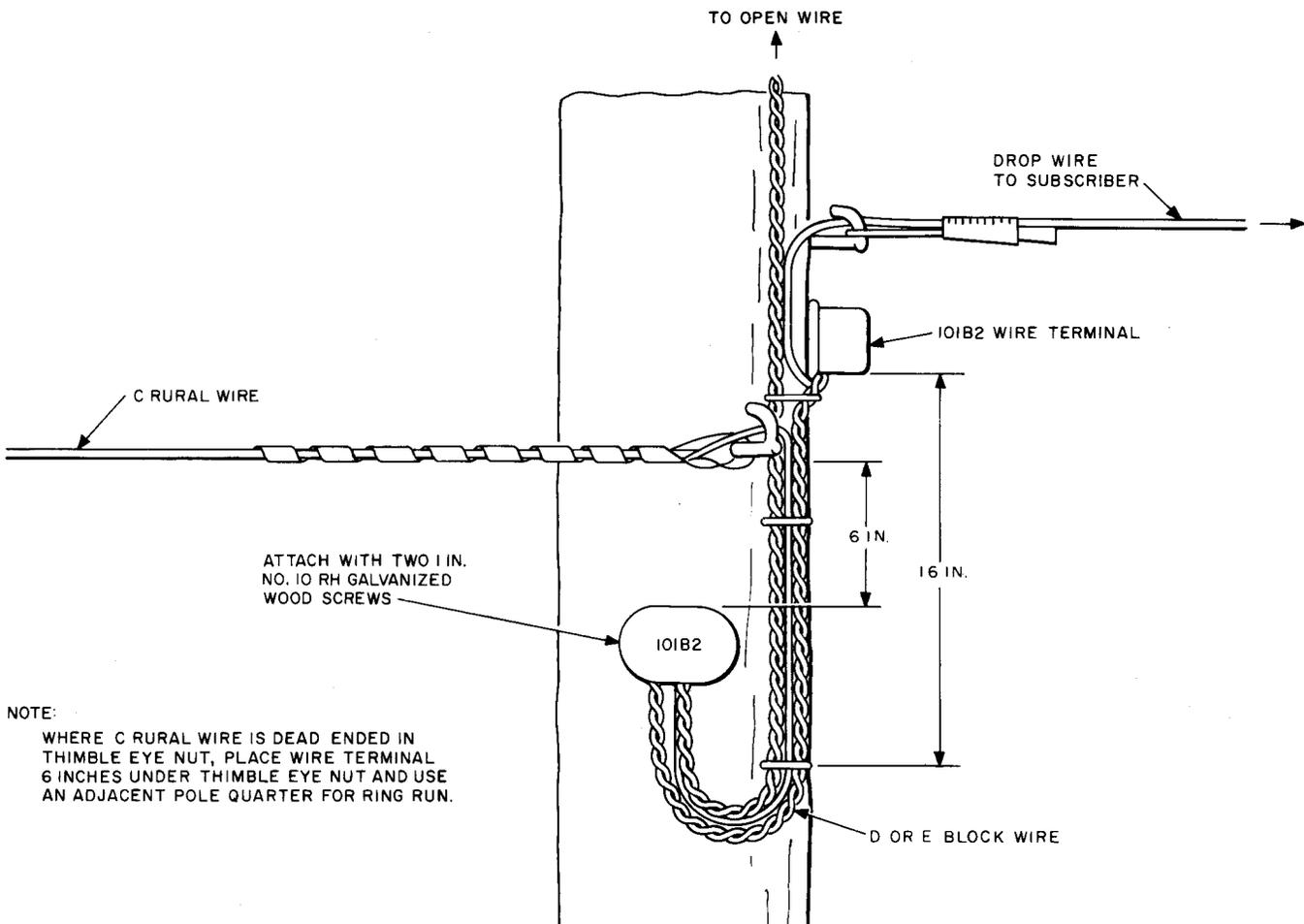


Fig. 7—C Rural Wire Terminated in 101B2 Terminal

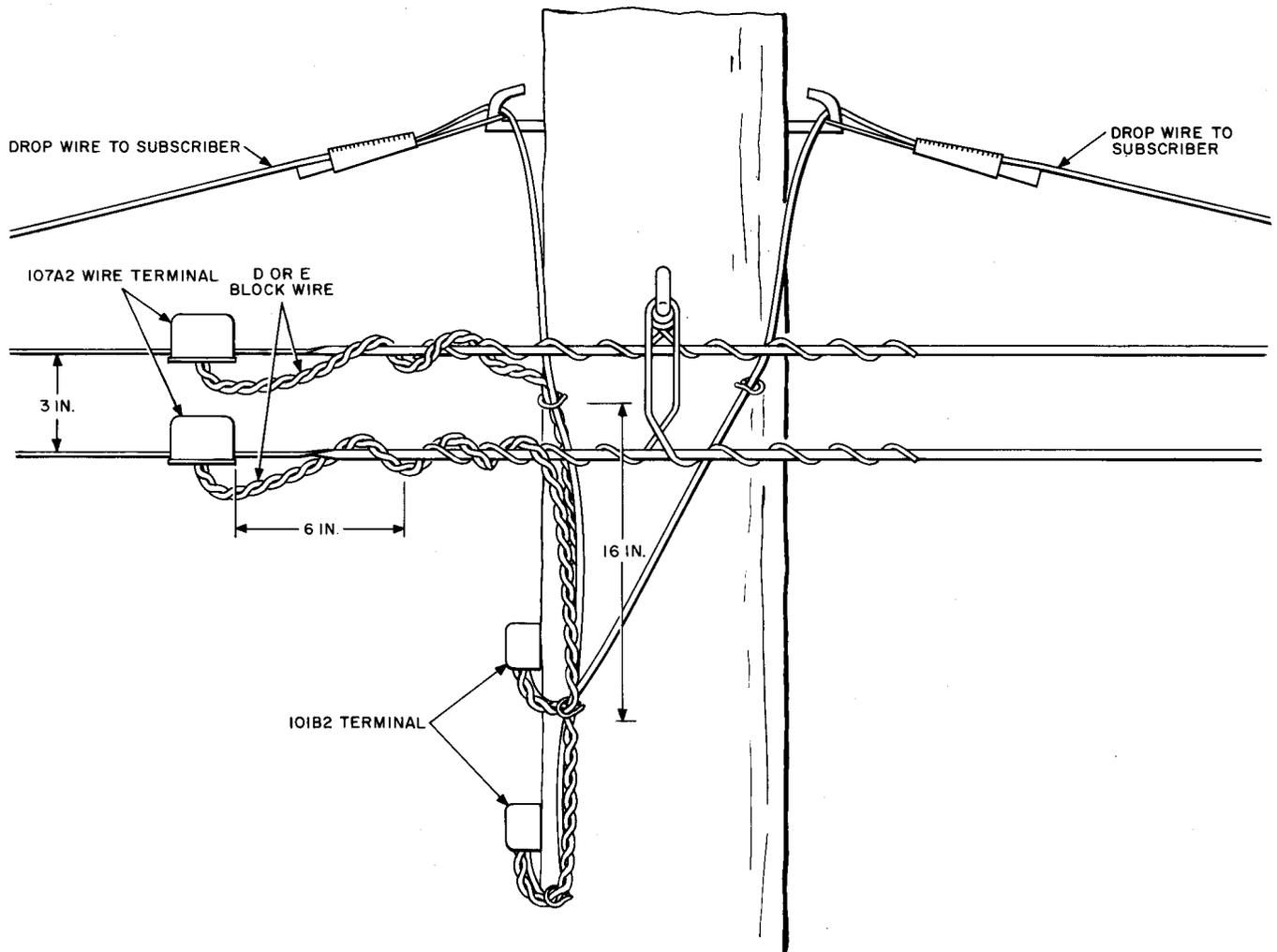


Fig. 8—C Rural Wires With Terminations at Intermediate Pole

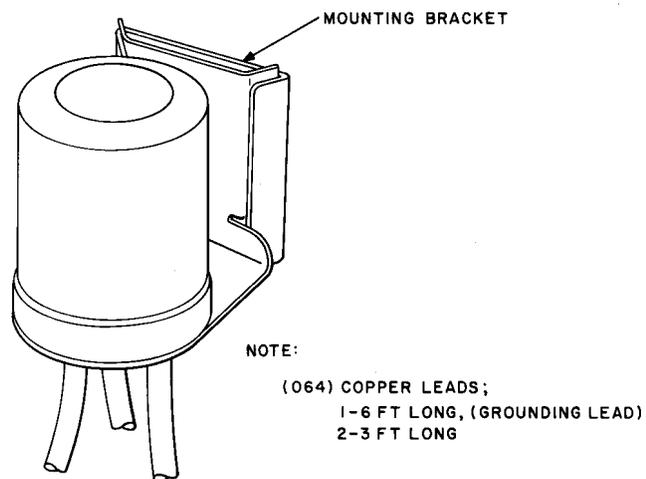


Fig. 9—118B Protector

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4.03 On higher voltage joint-use poles, an effectively grounded strand with lashed or ring supported aerial cable is considered to be sufficiently guarded against power contacts. C rural wires which are attached directly *below* such cables do not require 118B protectors. This applies to power lines with or without a multigrounded neutral wire.

4.04 Do not remove 118B protectors from dead circuits on higher voltage joint-use poles.

4.05 Figures 10 and 11 illustrate two methods for installing 118B protectors at the end of C rural wire. The 118B protector is installed 8 inches below the drive hook and terminated in a 101B2 wire terminal (Fig. 10) or in 107A2 wire terminals as shown in Fig. 11. At least 2 feet of D or E block wire shall be used to serve as a fusible link between the C rural wire and the 101B2 wire terminal serving the subscriber drop wire.

4.06 Figure 12 illustrates 118B protectors installed on C rural wire at an intermediate pole. The 118B protectors are terminated on the C rural wire in 107A2 wire terminals. At least 2 feet of D or E block wire shall be used between the 107A2 wire terminals on the rural wire and the 101B2 wire terminals on the pole to serve as a fusible link between the C rural wire and the subscriber drop wire.

5. GROUNDING 118B PROTECTORS

5.01 The ground wire from the 118B protector should preferably be connected to a power vertical grounding conductor that is connected to both the power system multigrounded neutral wire and to a ground electrode. Grounding conductors on transformer poles which meet the above requirements are satisfactory. Grounding conductors from power system lightning *arresters shall not be used unless they are connected to the power neutral wire*. The connection between the ground lead of the 118B protector and the vertical grounding conductor may be made by telephone craftsmen if this procedure meets with the approval of the power company. *Telephone craftsmen shall test the power vertical grounding conductor with a B voltage tester as described in Section 620-105-010 before making this connection.*

5.02 Where the power company has installed an aluminum vertical grounding conductor, do not use an AT-7796X connector because of the corrosive chemical reaction between copper and

aluminum. Make the grounding connection to the aluminum vertical grounding conductor with a Blackburn PAC 3 or a Fargo GA610C connector.

5.03 If a 118B protector is to be installed at a location where there is no power system vertical grounding conductor, install a ground rod at the base of the pole and run a B ground wire from the ground rod to the top of the telephone space and leave coiled at this point an additional length (usually about 6 feet) sufficient to reach the power neutral wire. *The connection to the neutral wire shall be made by a power company craftsman*. Report all such cases to the supervisor immediately in order that arrangements may be made to have the grounding conductor connected to the power neutral as soon as practical.

5.04 *Do not perform any work in the power company space on the pole.*

5.05 Place the ground rod and vertical grounding conductor as follows:

- (a) Drive a ground rod about 2 feet from the base of the pole so the top of the rod will be about 3 inches below the level of the ground. In general, the ground rod should be located so the grounding conductor may be run on the side of the pole reserved for power company attachments.
- (b) Connect the vertical grounding conductor directly to the ground rod with a B ground clamp.
- (c) Fasten the grounding conductor to the pole at 18-inch intervals with 1-1/4 inch B staples.
- (d) If ground wire molding is used, fasten it with No. 16 cable straps and 1-1/2 inch strap nails at 4-foot intervals.

6. REMOVAL OF WIRE TERMINALS

6.01 When 107-type wire terminals are removed from C rural wire the punctures at the terminal contact points should be covered by two reversed half-lapped layers of DR tape extending 3/4 inch beyond each puncture. The DR tape should be wrapped with one half-lapped layer of vinyl tape extending 1/2 inch beyond the ends of the DR tape.

6.02 Since 107-type wire terminals are not reusable, those terminals no longer in service can be left in place to cover the punctures at the contact points. Be sure the cover and its locking projections are in place as covered in Part 2.

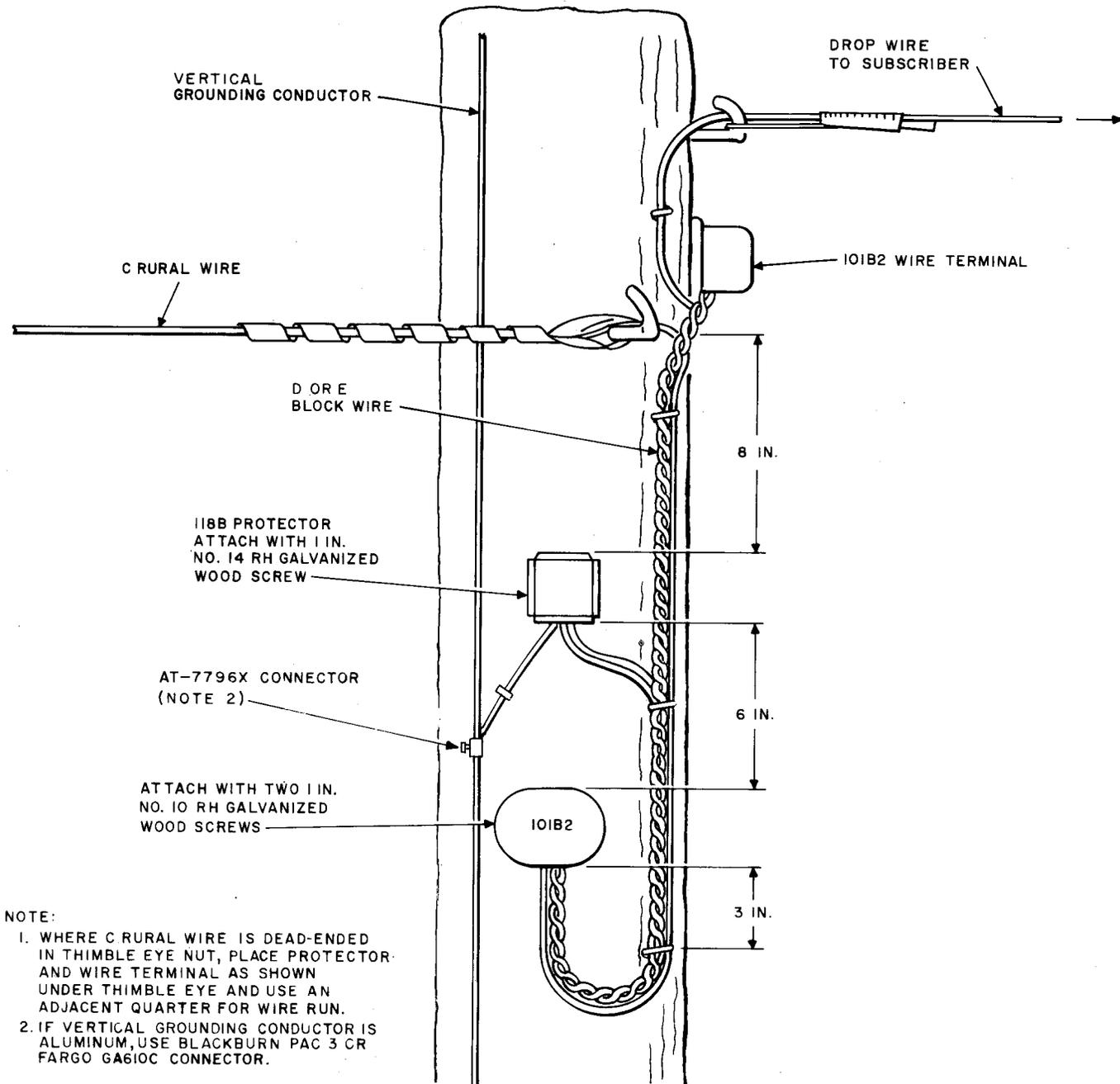


Fig. 10—C Rural Wire Terminated in 101B2 Terminal with 118B Protector Installed

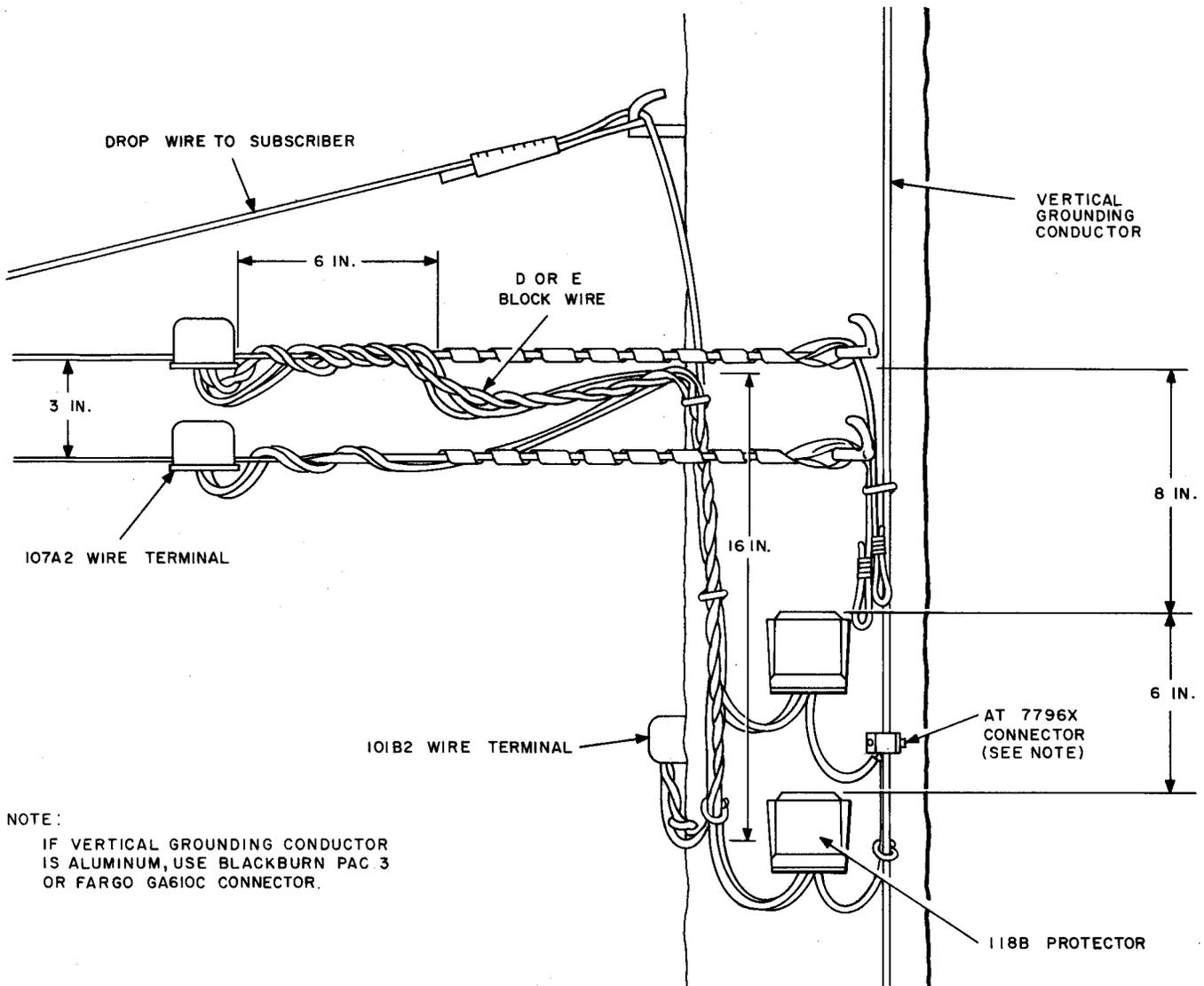


Fig. 11—118B Protectors on C Rural Wire at Dead-end Pole

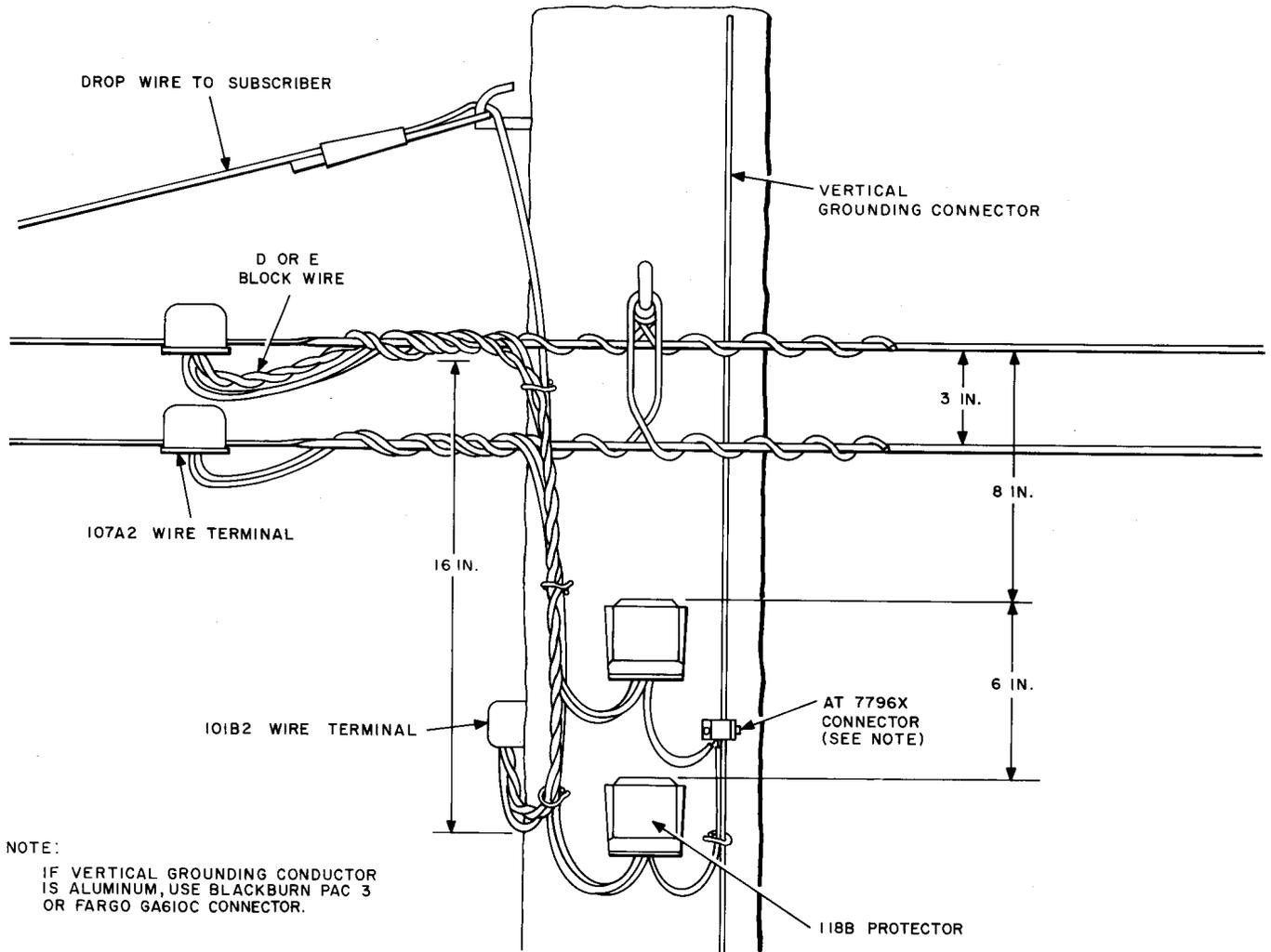


Fig. 12—118B Protectors on C Rural Wire at Intermediate Pole