DROP AND BLOCK WIRING

MULTIPLE DROP WIRE

PLACING

1. GENERAL

1.01 This section covers methods for placing multiple drop wire in spans and on building walls.

1.02 This information was formerly covered in Section 625-500-200 (G32.138.2) which is canceled.

2. PLANNING MULTIPLE DROP WIRE RUNS

2.01 In planning multiple drop wire runs on building walls, observe the following suggestions:

(a) Select a location for the first attachment which will keep the drop wire clear of trees. In some cases an adjacent building may be used for the first attachment as a means of avoiding trees.

(b) Locate ring runs with a view to permanency and accessibility. Avoid runs requiring the use of long ladders.

(c) Make all runs horizontal or vertical insofar as practicable. Horizontal runs should be placed out of reach of the public, particularly children.

(d) Locate wire runs with a minimum of obstructions.

(e) Where necessary to cross or parallel electric wiring, rain spouts, or other obstructions, the minimum separation covered in Section 620-220-011 for drop wiring should be observed.

2.02 Multiple drop wire is supplied on large reels. It will be necessary to make a preliminary survey of a proposed installation to determine the length of wire required so as to avoid excess wire loss. The required length of wire can be cut from reel in garage or storeroom and, if not over 250 feet, it can be coiled on the drop wire reel. If length is over 250 feet, coil the wire in a hand coil of convenient size. Should a number of installations be located close together, it may be desirable to take the reel of wire to the job and distribute as required.

3. MULTIPLE DROP WIRE RUNS ON BUILDINGS

3.01 ***First Building Attachment***—Use a drop wire hook as the first building attachment for multiple drop wire in pole-to-house spans. Attach hook to masonry walls with 5/16 by 1-3/4 inch hammer drive anchor; and to wood, stucco on wood, and metal on wood walls with No. 18

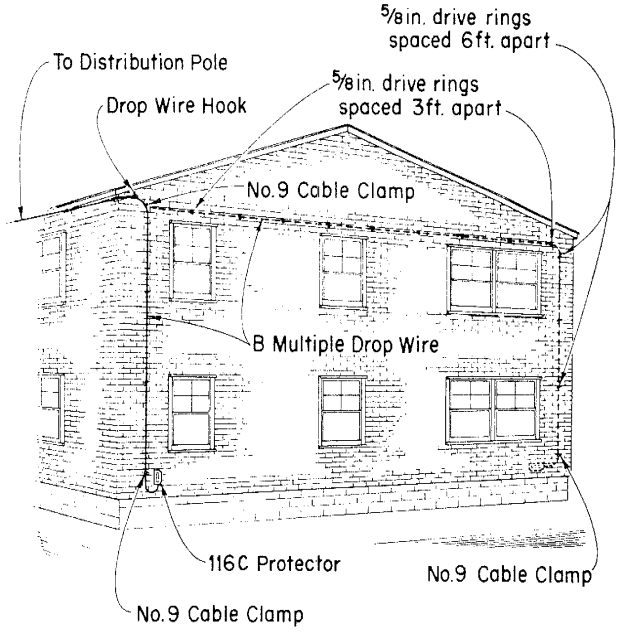

Fig. 1 — Complete Wire Run on Building

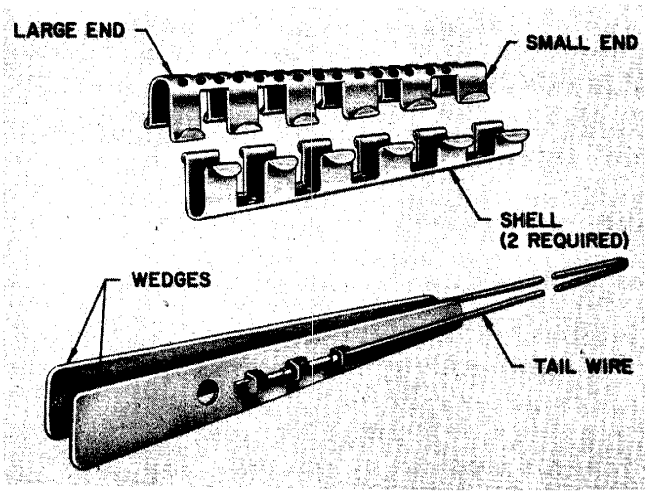

Fig. 2 — D Drop Wire Clamp

RH galvanized wood screw 2-1/2 inches or longer. The screw should penetrate the house studding at least 1-1/4 inch. Only one multiple drop wire should be supported on a drop wire hook.

3.02 ***Second Building Attachment*** — Clamp the cable to the wall close to the drop wire hook attachment with a No. 9 cable clamp. Attach clamp to walls as follows:

Wood walls — 1-1/2 inch No. 14 galvanized RH wood screws

Masonry walls — 1/4- by 1-inch hammer drive anchor

Stucco on wood
Metal on wood
Rigid composition
} 2-inch No. 14 galvanized RH wood screw

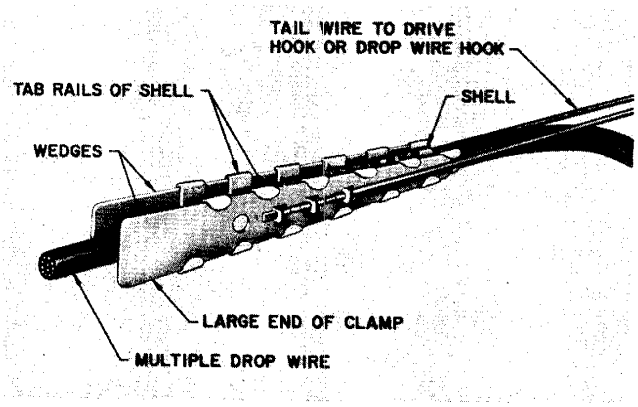

Fig. 3 — Complete Assembly of Clamp on Wire

3.03 ***Intermediate Building Attachments*** — Use 5/8-inch drive rings about 3 feet apart as intermediate attachments. It will be necessary to spread the opening in the rings slightly in order to insert the multiple drop wire.

3.04 ***Last Building Attachment*** — Place a No. 9 cable clamp on the multiple drop wire 6 inches from point of entrance to protector, wire terminal, or building after pulling the wire taut in the ring run. Attach clamp to wall as indicated in 3.02.

3.05 The multiple drop wire may be terminated in 6-pair wire terminal or 6-pair protector on the outside wall or inside the building.

3.06 Complete wire run on outside building wall is illustrated in Fig. 1.

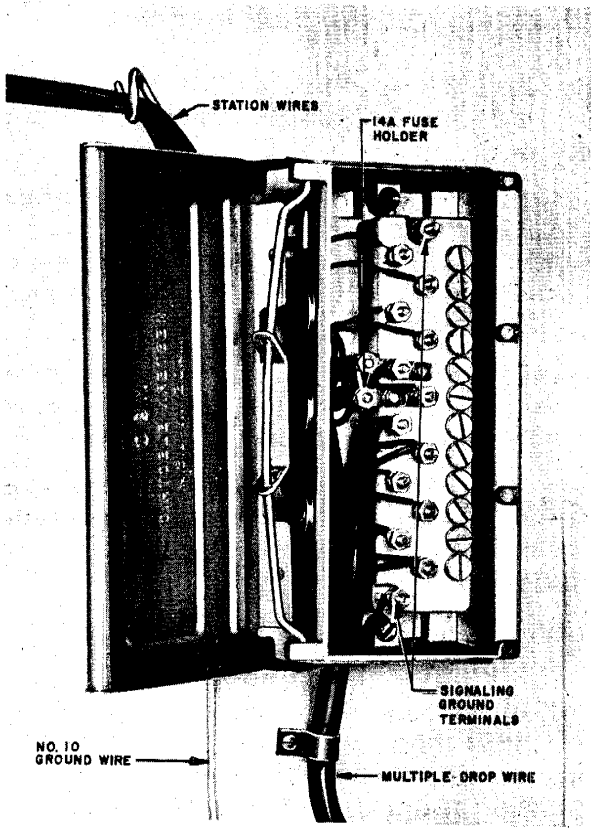

Fig. 4 — Wiring of 116C Protector

4. MULTIPLE DROP WIRE RUNS ALONG A LEAD

4.01 Follow the methods prescribed for individual drop wires in pole-to-pole runs.

5. DISTRIBUTING MULTIPLE DROP WIRE FROM TERMINAL POLES

5.01 Distribute multiple wire in the manner described for individual drop wires.

6. PLACING D DROP WIRE CLAMPS ON MULTIPLE DROP WIRE

6.01 The D clamp is designed primarily for use on multiple drop wire. It consists of two identical semicircular shells and two flat wedges held together by a tail wire. The clamp is illustrated in Fig. 2.

6.02 Install the clamp on the wire in the following manner:

(1) Interlock the two shells on the wire with the large ends toward the span.

(2) Press the shells together and slide the wedges into the tab rails on the sides of the shells. Tap the wedges with pliers to seat them firmly.

(3) Place the tail wire over the drive hook or drop wire hook.

(4) Complete assembly of clamp on wire is illustrated in Fig. 3.

7. TERMINATING MULTIPLE DROP WIRE IN CABLE TERMINALS

7.01 Remove the outer jacket and glass yarn tape back to the first of the three drive or bridle rings associated with a pole- or wall-mounted terminal. For sheath-mounted terminals, stop jacket at terminal wiring ring nearest the pole. Fan out the pairs, run them through the rings, and terminate them in the terminal in the manner followed for block wire.

8. TERMINATING MULTIPLE DROP WIRE IN 116-TYPE PROTECTORS

8.01 The 116C protector, shown in Fig. 4, consists of a metal housing equipped with a hinged metal cover and containing twelve No. 2A1A protector units, six pairs of line terminals, and two terminals for signaling ground connections. Also furnished is a clamp fixture for terminating ground wire to housing to provide protector ground. The signaling ground terminals are located at each end of the terminal block.

8.02 The 116C protector is arranged for fastening to mounting surface without requiring a separate mounting bracket.

8.03 Wiring of 116C protector is shown in Fig. 4.

8.04 Insert the multiple wire into either end of the protector as desired. It will greatly facilitate conductor terminations if the end of the multiple wire is stripped of its outer jacket before inserting the wire into the protector housing.

8.05 The 116C protector (Fig. 4) and the 116A protector (Fig. 5) are shown served by a multiple drop wire, but they can also be served by separate drop wires.

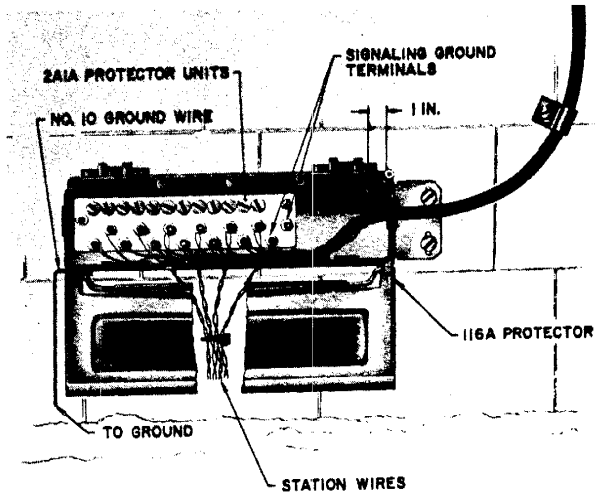

Fig. 5 — Wiring of 116A Protector

8.06 All drop wire conductors should be terminated during the initial installation. Place the individual wires under the bottom nut of each binding post. Station wires entering the protector through the wire holes are terminated between the washers below the top nut. The signaling ground terminals are bonded internally to the protector ground terminal.

8.07 The 116A protector is equipped with a housing which is similar to that of the 10-pair N-type distribution terminals. Mount the protector on walls in manner prescribed for N-type terminals. This protector has been superseded by the 116C protector.

8.08 Wiring of 116A protector is illustrated in Fig. 5.

9. INSTALLING 60-TYPE FUSES ON 116-TYPE PROTECTORS

9.01 Sneak current fuses, when specified, may be added to the 116-type protector. A 14A fuse holder is used to mount the 60-type fuse on the protector (see Fig. 4).

10. TERMINATING MULTIPLE DROP WIRE IN 104B WIRE TERMINALS

10.01 A 6-pair wire terminal similar in design to the 116C protector is used where station protectors are not required. The terminal block is similar to the block in the 116C protector except for the omission of the 2A1A protector units and ground clamp. The wiring of the wire terminal will be the same as for the 116C protector except that the ground wire connection when required for station ringers is made on one of the ground posts. Use a No. 14 ground wire for this purpose.