

## STANDARD METHOD OF PROVIDING KIOSKS WITH AN ELECTRICITY SUPPLY FROM OVERHEAD POWER LINES

1. **General.** A standard method of providing electricity supplies to telephone kiosks from L.V. overhead power lines has been agreed between the P.O. and the Area Electricity Boards. This standard method, which is described in this Instruction, should be adopted for all future installations. Directions to Area Boards are contained in Engineering Recommendation L21 issued by the Central Electricity Authority and Area Boards' Chief Engineers' Conference, from which Figs. 1, 2, 3 and 4 in this Instruction have been reproduced.

2. **Details of standard method.** The standard method of providing the supply to a kiosk from an overhead power line is shown in Figs. 1 and 2. The main points to note are as follows:-

(a) The power supply is overhead to a pole in the vicinity of the kiosk, from which it is extended to the kiosk by cable. This pole may be a P.O. pole or a power line pole (see par. 4).

(b) The power cable leading down the pole and into the kiosk is P.V.C. insulated, armoured, and provided with a P.V.C. sheath 60 mils thick over the armouring. The armouring of the cable is bonded to the neutral conductor at the top of the pole (see Fig. 3). The cable on the pole is protected by steel capping or steel conduit to a height of 8 ft. from ground level.

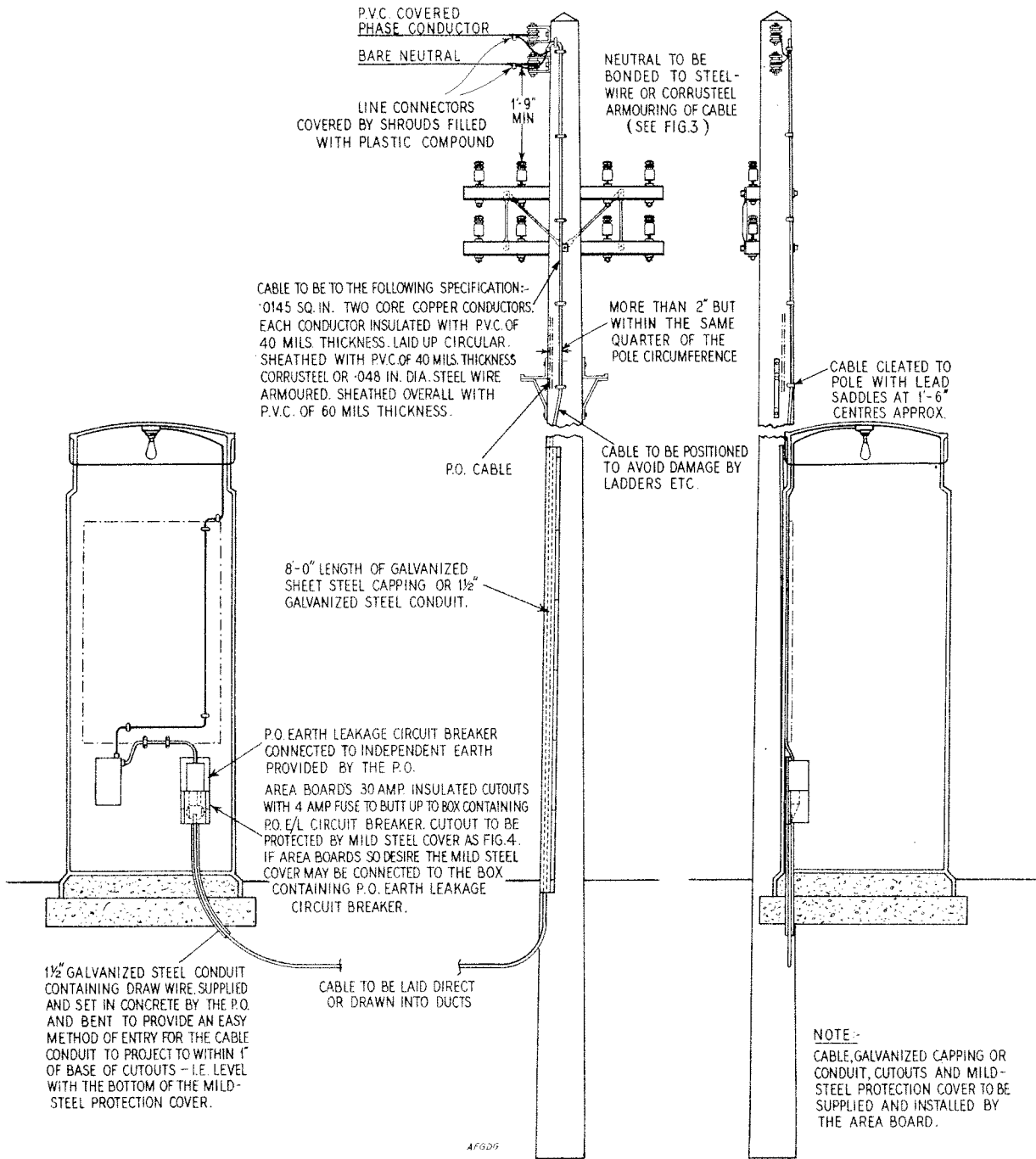
(c) The power cable is led-in through the base of the kiosk, and terminated in an insulated cut-out. The cut-out is protected against mechanical damage by the sheet-steel cover shown in Fig. 4. This cover will be provided by the Area Electricity Board.

(d) A lead-in pipe is provided through the base of the kiosk. This pipe should be supplied and set in the concrete base of the kiosk by the P.O., and bent to provide an easy method of entry for the cable. The pipe should project through the base of the kiosk to within approximately one inch of the bottom of the cut-out when in position. A draw wire should be left in the pipe by the P.O., to facilitate the work of the Board. As Boards may use different makes and sizes of cut-outs the length of pipe projecting above the floor of the kiosk should be decided in consultation with the Board.

3. An earth-leakage circuit-breaker, a main earth electrode for the kiosk metalwork, and an auxiliary earth electrode for the earth-leakage circuit-breaker should be provided by the P.O. in accordance with PROTECTION, General, S 3901. The Board should fit the insulated cut-out referred to in par. 2(c) to butt up to the "Boxes, Conduit, No. 10", which contains the earth-leakage circuit-breaker.

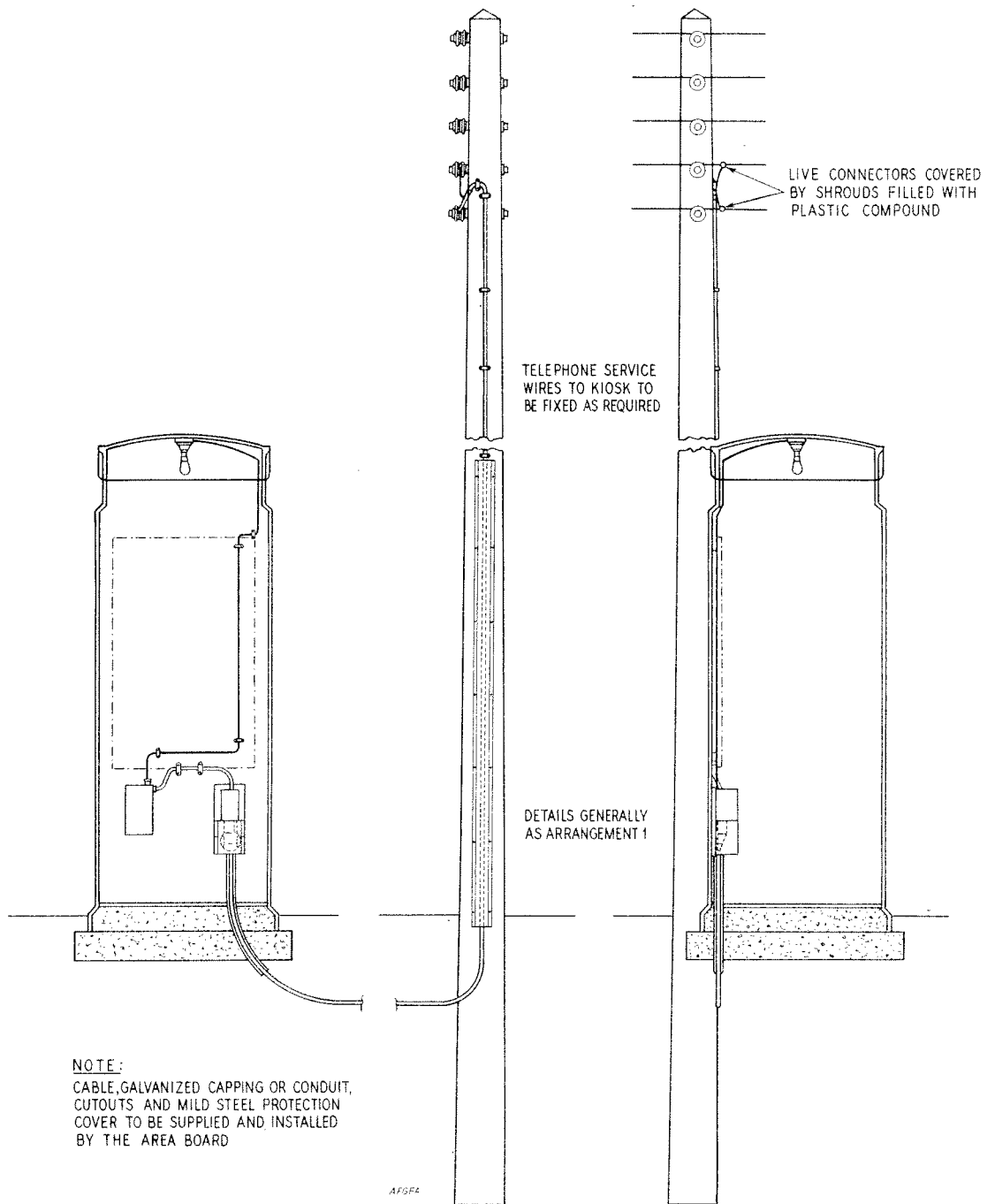
4. **Joint use of poles for kiosk services.** The pole in the vicinity of the kiosk, referred to in par. 2(a), may be a P.O. pole or a Board's pole. In Fig. 1 (Arrangement 1) the power conductors and power service cable are shown attached to a P.O. pole. It will be noted that the cables on the pole should be positioned so as to avoid possible damage by ladders. In Fig. 2 (Arrangement 2), the kiosk is shown supplied from a 3-phase power line pole. When the supply is taken from the Board's pole, the P.O. wires serving the kiosk may be attached to the Board's pole. This point should be borne in mind when selecting kiosk sites, as the positioning of a kiosk near an existing power line pole may often appreciably reduce the cost of providing the services to the kiosk.

5. Where P.O. wires are attached to Board's poles, or power conductors to P.O. poles, consent for the attachment should be obtained in accordance with WAYLEAVES, Attachments, A 0513, and the technical requirements of PROTECTION, Power, D 0020 should be observed.



ARRANGEMENT 1  
KIOSK SUPPLIED FROM POWER SERVICE LINE ATTACHED TO P.O. POLE

FIG. 1



ARRANGEMENT 2  
KIOSK SUPPLIED FROM POWER LINE POLE

FIG. 2

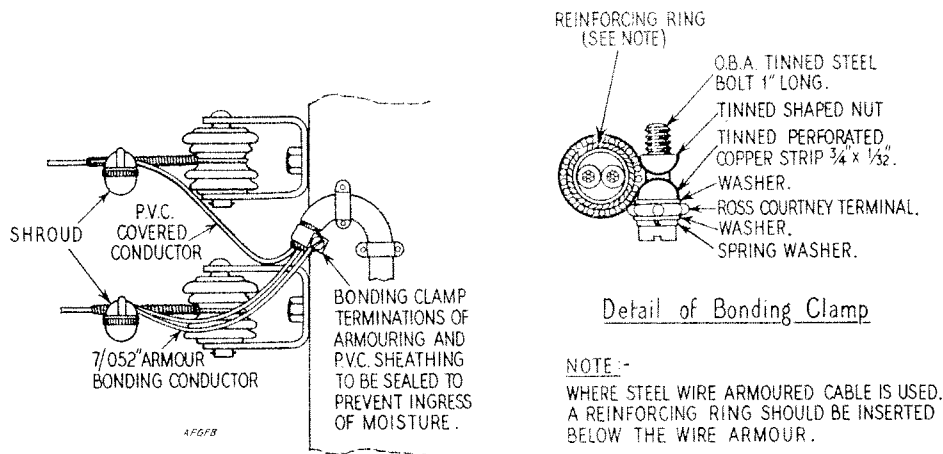


FIG. 3. ARRANGEMENT OF ARMOUR BONDING

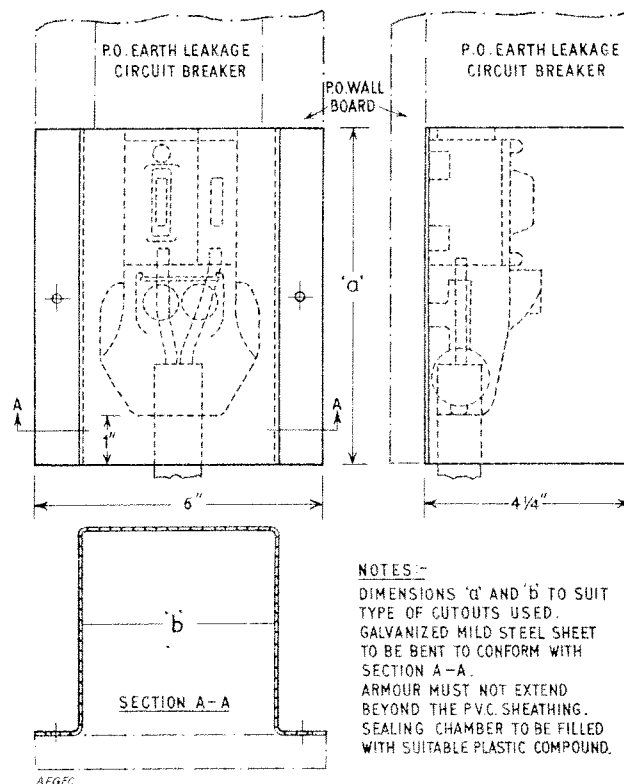


FIG. 4. SHEET-STEEL COVER FOR CUT-OUT

References:- PROTECTION, General, S 3901, Power, E 0020  
(Cn 2) WAYLEAVES, Attachments, A 0513

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