

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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TERMINALS—SPLICING
“B” AND “BB” CABLE TERMINALS

Contents	Page
1. General	1
2. Description and Color Code	1
3. Stub Arrangements and Splicing Procedure	2
4. Drip Flanges	9
5. Bonding	9
6. Terminating Buried Cable	9

1. GENERAL

1.01 This section describes the stub arrangement and method of splicing B and BB terminals that are used in aerial cable terminations.

1.02 B Cable Terminals are used for cross connecting aerial cables to underground, submarine or buried cables where it is necessary to install fuses. BB Cable Terminals are used for cross connecting two aerial cables.

2. DESCRIPTION AND COLOR CODE

2.01 In B Cable Terminals the sealed chambers on the left-hand side of the box are equipped with binding posts on which the aerial cable is terminated. The sealed chambers on the right-hand side are equipped with fuse posts and are used to terminate the underground, submarine or buried cable. Except for the fact that no fuse chambers are provided, the arrangement in the BB terminals is substantially the same. In terminals larger than the 101 pair sizes, there are either two or four sealed chambers on each side of the box. Each sealed chamber is equipped with a stub cable. The following table shows the number and sizes of the sealed chambers in the various sizes of B and BB Cable Terminals:

SIZE OF SEALED CHAMBER CABLE TERMINAL	NUMBER OF SEALED CHAMBERS *	SIZE OF SEALED CHAMBER
26 Pair	1	26 Pair
51 "	1	51 "
76 "	1	76 "
101 "	1	101 "
152 "	2	76 "
202 "	2	101 "
303 "	4	76 "
404 "	4	101 "

* This column gives number of chambers on one side of box only. Each box has the same equipment of chambers on both sides of the box.

2.02 Sealed chambers of 26 pairs, 51 pairs, 76 pairs and 101 pairs are used in making up the various sizes of B and BB Cable Terminals. The color codes used in the stubs are as follows:

COLOR CODE OF STUBS IN SEALED CHAMBER CABLE TERMINALS		
SIZE OF TERMINAL	PAIR NUMBERS	COLOR CODE
26 Pair	1-25	White-Red
	26	Orange-Red
51 Pair	1-50	White-Red
	51	Orange-Red
76 Pair	1-75	White-Red
	76	Orange-Red
101 Pair	1-49	White-Red
	50	Orange-Red
	51-100	White-Blue
	101	Orange-Red

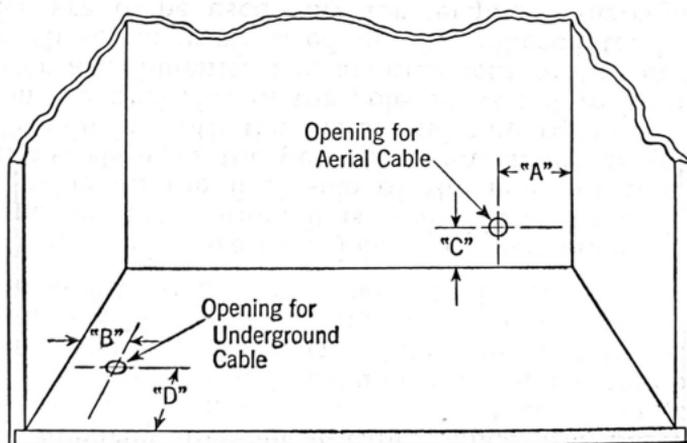
3. STUB ARRANGEMENTS AND SPLICING PROCEDURE

3.01 To make splices at a B Cable Terminal proceed as follows:

If the balcony has been placed, it may be desirable to remove the board platform of the balcony in order to facilitate the work of splicing. In the case of B Cable Terminals larger than 101 pairs, it is desirable to remove the balcony while making the splices.

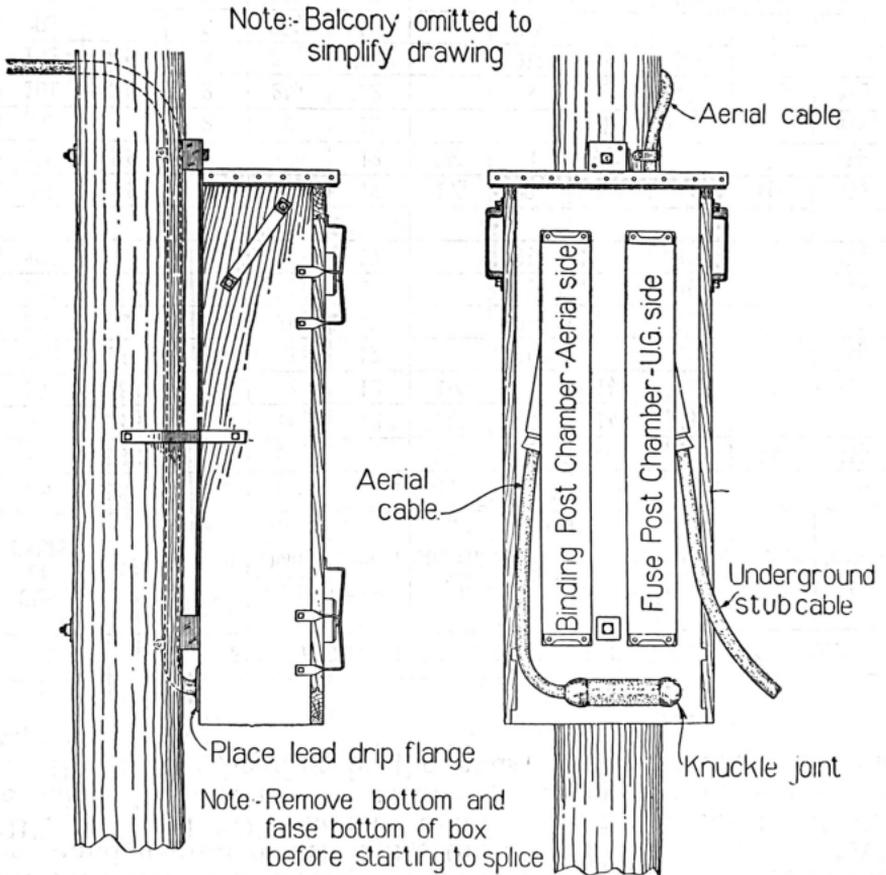
Remove the false bottom and mark the location of the holes for both aerial and underground cables. The following table will be found helpful in arranging the splices. Measurements "A", "B", "C" and "D" should be made from the inside of the terminal. The lengths of sleeves given in this table are the lengths before beating in the ends and preparing them for wiping.

LEAD SLEEVES FOR SPLICES IN SEALED CHAMBER CABLE TERMINALS										
Size of Cable	Gauge	Rows of Cotton Sleeves	Sizes of Lead Sleeves		"A" Inches		"B" Inches		"C" Inches	"D" Inches
			Diam. Inches	Length Inches	Straight Joint	Knuckle Joint	Straight Joint	Knuckle Joint		
26	22 & 24	2	1¼	12	1½	3	1½	3	1	4½
51	22 & 24	2	1½	12	1½	3	1½	3	1⅛	4½
76	22 & 24	2	1¾	12	1½	3	1½	3	1¼	4½
101	22 & 24	2	2	12	1½	3	1½	3	1⅜	4½
152	22 & 24	3	2	17		9½		9½	1⅜	4½
202	22 & 24	3	2¼	17		9½		9½	1½	4½
303	22 & 24	3	2¾	17		9½		9½	1¾	4½
404	22 & 24	3	3	17		9½		9½	2	4½
26	19	2	1½	12	1½	3	1½		1⅛	4½
51	19	2	1¾	12	1½	3	1½		1¼	4½
76	19	2	2	12		3		3	1⅜	4½
101	19	2	2¼	12		3		3	1½	4½
152	19	3	2½	17		9½		9½	1½	4½
202	19	3	2¾	17		9½		9½	1¾	4½
303	19	3	3½	17		9½		9½	2¼	4½



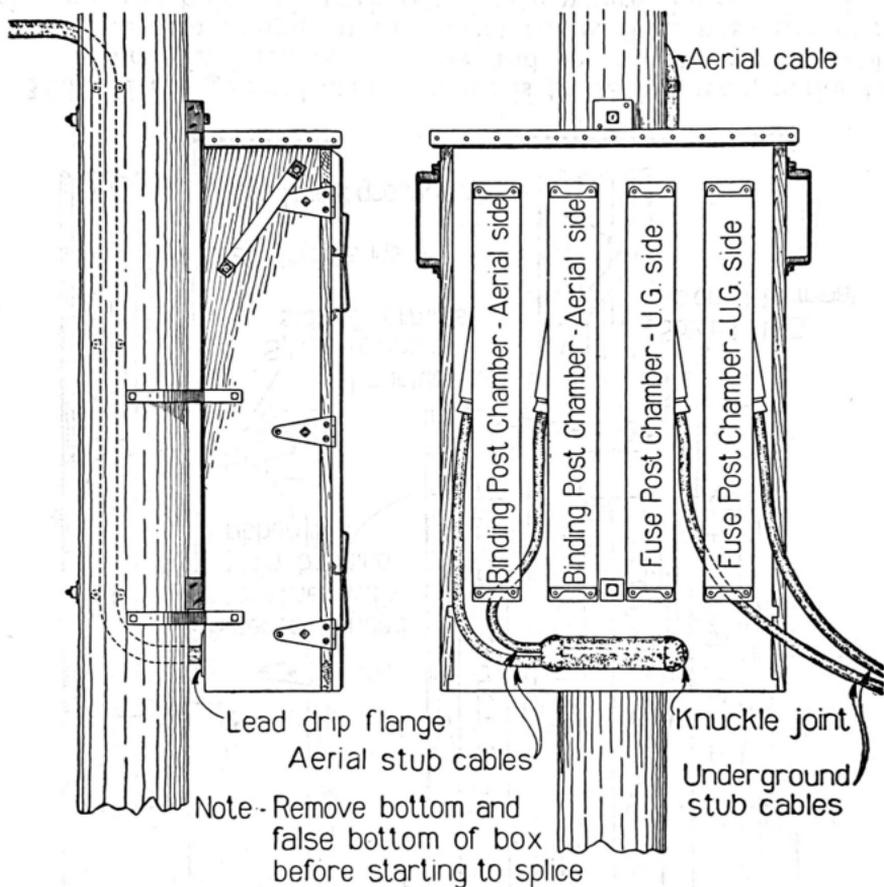
3.02 Ordinarily, the aerial cable splice will be made first and located in the back of the box. When conditions make it desirable, the underground cable splice can be located in the back of the box. If this is done, however, the stub cables entering the underground splice must be arranged so as to allow the aerial cable to pass beneath them.

3.03 When poles are used jointly for telephone and electric power distribution, it is desirable to have the vertical runs of cable on the field side of the pole. In the following illustrations, showing the general arrangement of splices in B Cable Terminals, both the aerial and underground cables are placed on the field side of the pole, so as not to interfere with any power attachments. The arrangement of the underground cable in these diagrams need not be adhered to, however, if the poles are to be used only for telephone distribution.

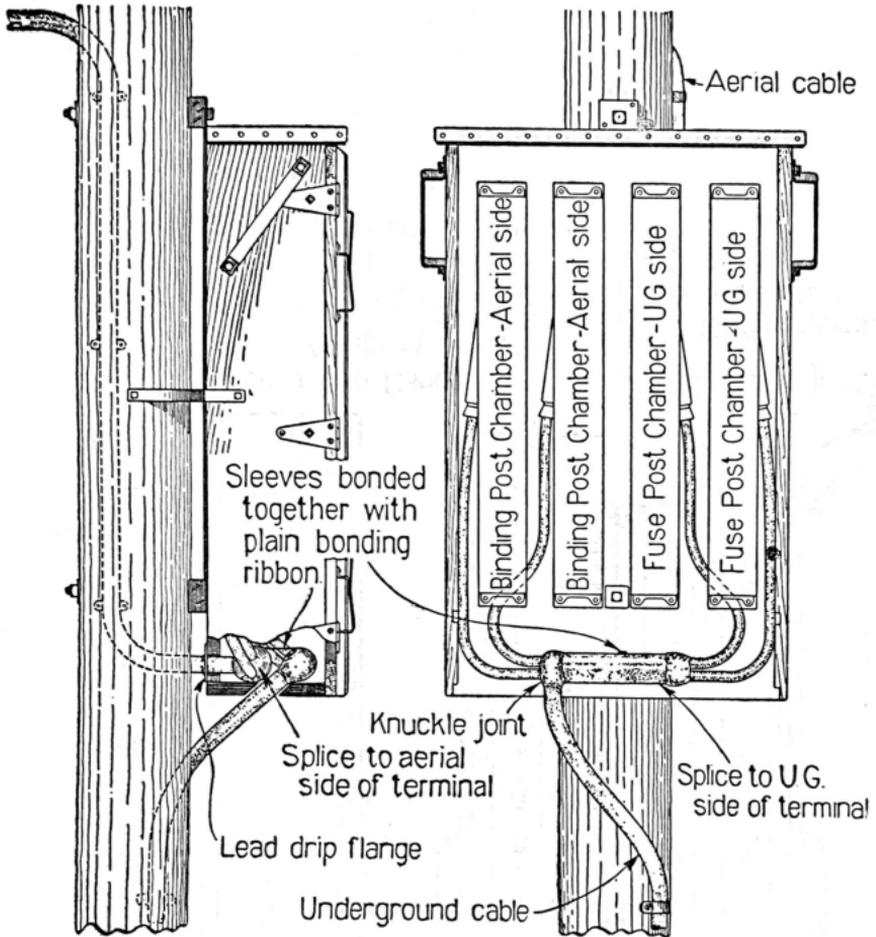


3.04 In B Cable Terminals of the 152 pair size and larger, the stub cables from the inner sealing chambers are set up in back of the outer chambers, as illustrated, to facilitate splicing.

Note:-Balcony omitted to simplify drawing



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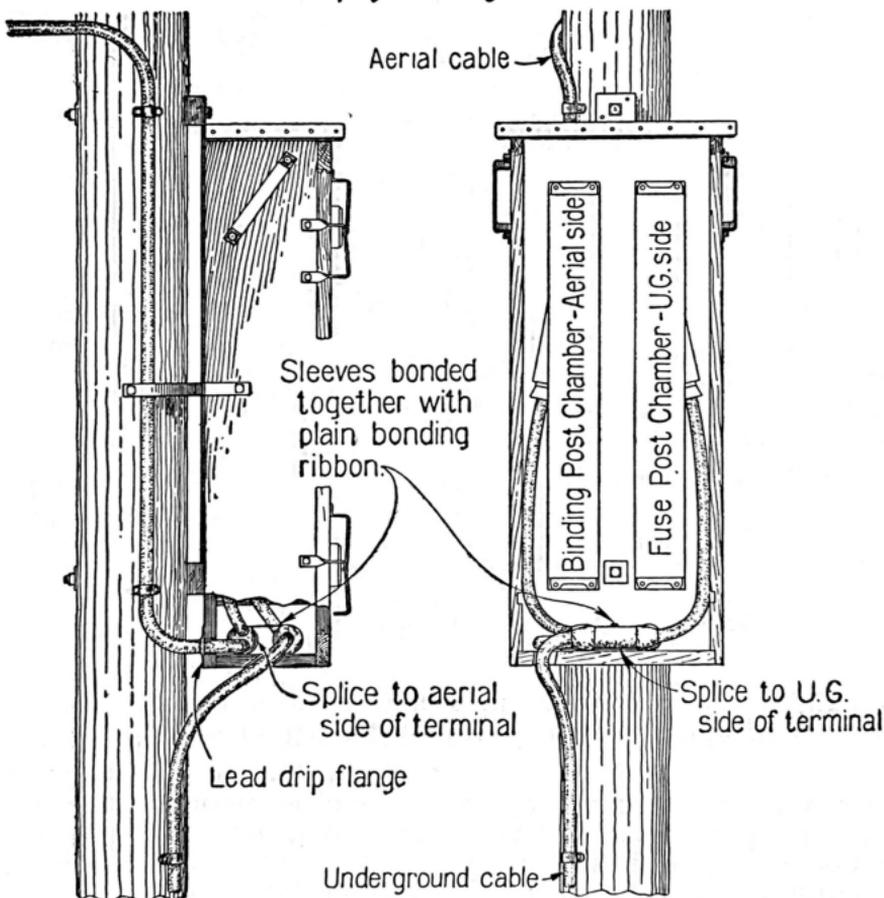
3.05 If the general arrangement is to be followed, make the hole in back of the box and set up the aerial cable. Place the drip flange on the aerial cable, then pass the cable through the hole and mark the sheath where the opening is to be made. Remove the lowest clamp and pull the cable forward to facilitate splicing. Set up the aerial chamber stub cables as illustrated in the preceding paragraphs.

3.06 Prepare the sheath butt in the usual manner. Do not bend the wires too sharply, as a sharp bend may damage the insulation. Make the aerial splice and wipe the joints before removing the sheath on the underground side.

3.07 After the aerial splice has been completed make a hole in the bottom of the box, to the left of the center, for the underground cable. Set up the underground cable so that it may be spliced well toward the front of the box. Replace the bottom temporarily while shaping the stub cables of the underground chamber; then lower the bottom to permit splicing and wiping. When the underground splice is completed replace the bottom and false bottom of the box.

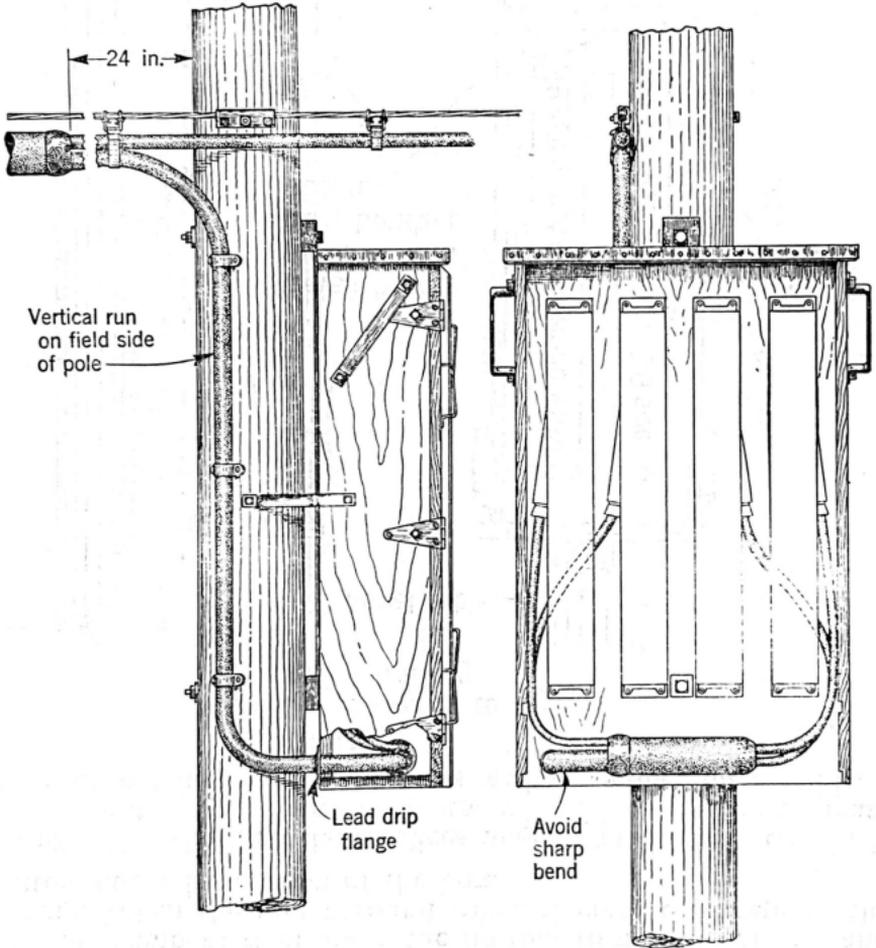
3.08 If desired, straight splices may be made in B terminals not larger than 101 pairs, with 22 or 24 gauge main cable or not larger than 51 pairs with 19 gauge main cable.

Note-Balcony omitted to simplify drawing



When terminating cables not larger than 101 pairs, 22 or 24 gauge, or 51 pairs, 19 gauge, it sometimes is desirable to bring the aerial and underground cables into the box on the side opposite from that indicated in the diagrams. In this case, the cables should be butt spliced to the stub from the sealed chambers.

3.09 Splices in BB Cable Terminals are made in the same general way as splices in the B Cable Terminal de-

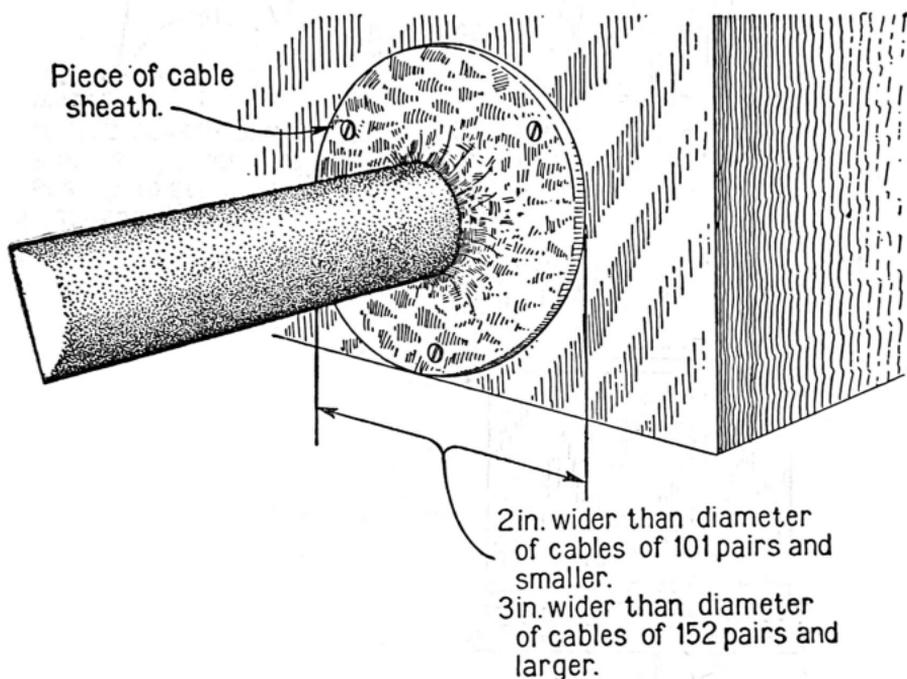


Note:
Balcony omitted to simplify drawing

scribed above. A typical arrangement of splices in a BB terminal is shown above. As in the case of B terminals, the vertical run of cable should be located on the field side of the pole.

4. DRIP FLANGES

4.01 Make a drip flange around the aerial cable where it enters the back of the box, so as to prevent water from running down the cable into the box. Make the drip flange out of a piece of cable sheath, as shown below. To make a tight joint around the cable, the drip flange may be wiped to the cable sheath, or the joint may be covered with wrappings of friction tape covered with a coating of No. 2 Asphalt Paint.



5. BONDING

5.01 Bond the two sleeves in the box with a piece of plain bonding ribbon, unless otherwise instructed.

6. TERMINATING BURIED CABLE

6.01 When a submarine cable is spliced at a B Cable Terminal, remove the armor wires from the submarine

cable as shown below and splice the submarine cable to the terminal stubs in the same manner as other cables.

