

**BELL SYSTEM PRACTICES**  
**Outside Plant Construction**  
**and Maintenance**

**SECTION G50.644.1**  
**Issue 1, May, 1948**  
**AT&T Co Standard**

## **CABLE SPLICING—GENERAL**

### **ARRANGEMENT OF COTTON SLEEVES**

### **AND JOINTS**

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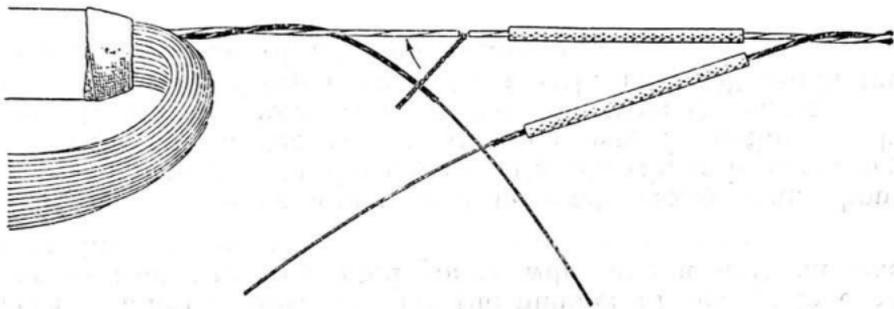
#### **1. GENERAL**

1.01 This section describes the arrangement of cotton sleeves and twisted joints in cable splices.

1.02 The number of rows of cotton sleeves will vary with the length of the sheath opening. In very small splices one row of sleeves will be sufficient. In splices that are to be covered with a 15-inch lead sleeve, two rows should be made. In splices with a 17, 20 or 22-inch lead sleeve, three rows should be made.

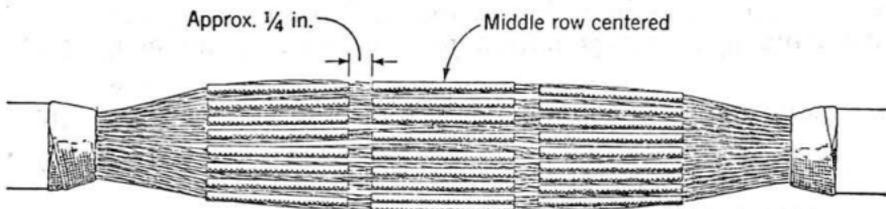
1.03 Allow approximately 1/4 inch between adjacent rows of sleeve. Do not allow sleeves of one row to overlap those of another row. Arrange the number of sleeves in each row so that the completed splice will have a uniform size throughout its length.

1.04 If conductor joints must be made closer than about 4 inches from the edge of the sheath, it is necessary to slip the cotton sleeves from the side away from the sheath. Make the twisted joint as far as possible from the sheath and bend the pigtail down toward the sheath. This will retain the maximum amount of wire for future use.



## 2. STRAIGHT SPLICES

2.01 The following sketch shows the typical arrangement in a straight splice with three rows of sleeves.

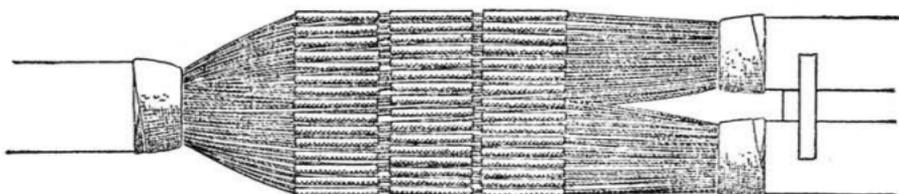


## 3. BRIDGE SPLICES

3.01 In a new bridge splice if the number of conductors that are to be bridged does not exceed two-thirds the number of conductors in the main cable, it will generally be desirable to make the bridge joints in the rows furthest away from the crotch.



3.02 If the branch cable is nearly the same size as the main cable, make the splice with the middle row of sleeves off center, so as to leave more space between the crotch and the nearest row of sleeves, as illustrated below.

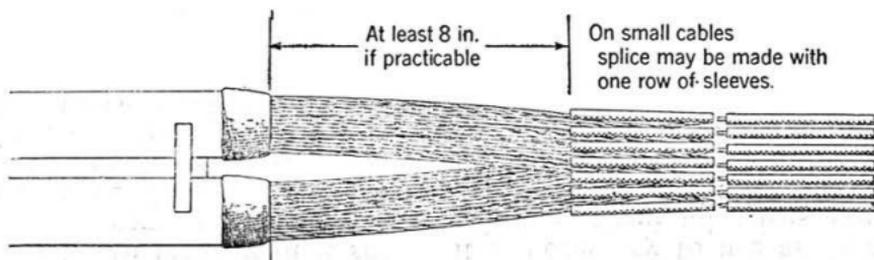


3.03 In adding a bridge to a straight splice retain the existing arrangement of sleeves, if possible, to avoid remaking the splice. Lengthen the sheath opening to the standard for the bridge splice and balloon the existing splice to make it easier to work on the conductors.

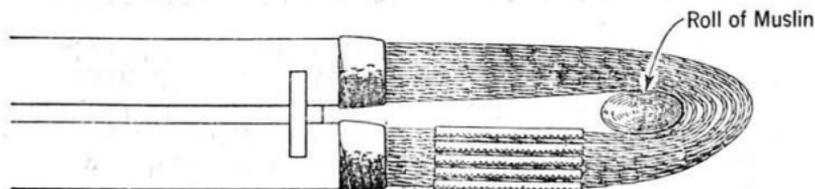
3.04 A bridge at a point where the main cable is not cut, requires a straight joint to piece out the main cable pairs, and the bridge joint. Arrange the splice so that the straight joints will be in the row nearest the crotch with the bridge joints on the opposite side.

#### 4. BUTT SPLICES

4.01 A butt splice may be made with either butt twisted joints or straight twisted joints. If the conductors are long enough to permit placing the cotton sleeves 8 inches from the edge of the sheath, make butt joints in the conductors.



4.02 If the conductors of one cable are short, loop the conductors of the longer cable around a roll of muslin and make straight joints. In looping the conductors, avoid sharp bends.



4.03 A butt splice is often made at the end of a main cable which has a branch or stub cable, and which will subsequently be extended. The conductors are left as long as practicable and the completed butt splice may require a sleeve longer than 22 inches. When the main cable is extended the splice should be remade with standard bridge joints.

## **5. CONDUCTORS LEFT DEAD IN SPLICES**

5.01 Conductors that are left dead in a splice should be cut and sleeved.

## **6. DUCT SPLICES**

6.01 In making duct splices it is necessary to use as many rows of sleeves as practicable. Keep all wires taut; excessive slack will make it impossible to place the lead sleeve over the splice. When practicable, splice the core of the cable first and work toward the outer layers so as to maintain a symmetrical lay-up.