BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G57.630.1
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AT&T CO Standard

SUBMARINE CABLE SPLICING
SPLICE CASE METHOD

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1. GENERAL

1.01 This section replaces Issue 1. It covers the method of splicing single, double and light wire armored submarine cables by means of submarine splice cases. The section deals primarily with the method of handling the armor wires and jute in joining two lengths of cable. The other splicing operations can be carried out in substantially the same manner as that followed in splicing land type lead covered cables.

1.02 The section has been revised to cover the C Submarine Splice Case which supersedes the B type case.

2. TOOLS AND MATERIAL

2.01 The tools and material listed below are required to install a splice case.

2.02 Material:

Case, Splice, Submarine, C: (2, 3 or 4-inch) — See Paragraph 3.01 for the size of case required.

Compound, Terminal: — For filling splice case.

2.03 Tools:

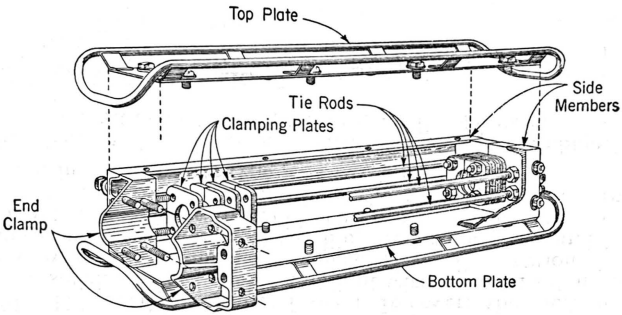
Cutter, Bolt: — For cutting armor wires.

Hacksaw, 32 teeth per inch: — For cutting armor wires. A fine tooth blade should be used.

Wrenches: — For tightening 1/2 to 1-inch bolts.

3. C SUBMARINE SPLICE CASE

3.01 The C Submarine Splice Case, illustrated in the following sketch, is available in three sizes. The sizes are designated 2-inch, 3-inch and 4-inch. The 2-inch size is for use in splicing single armored cables and the 3-inch and 4-inch sizes can be used to splice either single or double armored cables. The names of the various parts of the cases and the over-all dimensions are given in the table in the sketch. The size of case required can be determined from the table.



Case Size Designation (Inches)	Diameter of Cable over Armor Wires (Inches)	Clearance Between Tie Rods (Inches)	Approx. Length Inside the Case (Inches)	Overall Width (Inches)	Overall Height (Inches)	Overall Length (Inches)
2	2 or Smaller	4¾	29½	10⅜	9¾	44⅝
3	2 to 3	5½	30½	11⅜	10¾	49⅜
4	3 to 4	6½	80½	12⅜	11¾	49⅜

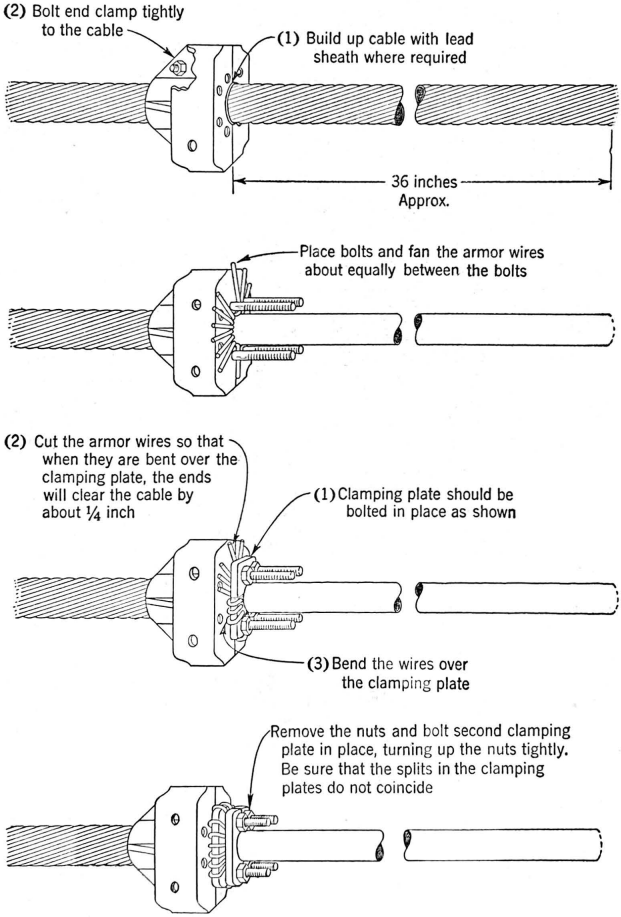
4. PREPARATION OF CABLE ENDS

4.01 The cable ends should be supported on horses or by other means, so that the splice will be 2-1/2 to 3 feet above the ground or deck of the boat, to afford sufficient room to handle the armor wires and assemble the splice case. The cable should be securely lashed to the supports.

4.02 The ends of the cable should be set up on the supports so that each end is straight for about 5 feet. If the cable is protected by an outer covering of jute, 42 inches of the jute should be removed from the end of each length of cable.

5. TERMINATING WIRES—SINGLE ARMORED CABLE

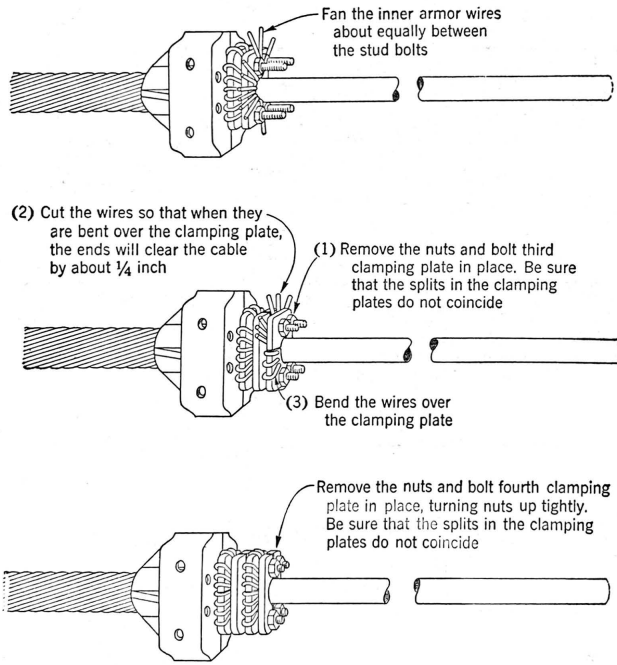
5.01 Attach the end clamp to the cable and terminate the armor wires, as shown in the following sketches. The numbers in parentheses indicate the sequence in which the operations should be done.



5.02 The second cable end should be prepared in the same manner as the first end.

6. TERMINATING WIRES—DOUBLE ARMORED CABLE

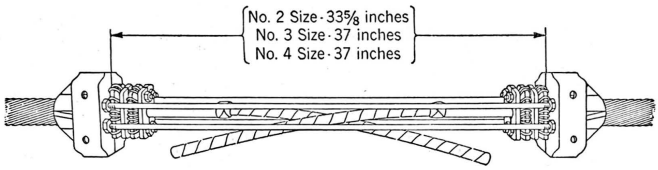
6.01 The outer armor wires of a double armored submarine cable should be terminated in the same manner as the armor wires of a single armored cable, as covered in Part 5. The inner armor wires should be terminated as shown in the following sketches. The numbers in parentheses indicate the sequence in which the operations should be done.



6.02 The second cable end should be prepared in the same manner as the first end.

7. ASSEMBLING CASE

7.01 Prepare the lead cable ends for splicing in the usual manner. Connect the two end clamps together so that the clamps are separated by the dimensions shown in the figure below. In the No. 3 and No. 4 cases, the 37-inch dimension applies to both single and double armored cables.



7.02 After the conductors have been spliced, the joints on the lead sleeve should be wiped and the seam run in the usual manner. Then replace any tie rods that were removed to facilitate splicing. Bolt the side members to the end clamps and then bolt the bottom plate to the side members.

7.03 Fill the case with terminal compound heated to a temperature, not in excess of 225° F. Bolt the top plate in place. A case assembled is shown below. Should any of the galvanizing on the case become damaged, the damaged surface should be coated with hot terminal compound.