

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G71.170
Issue 1, April, 1934
Provisional Standard

CABLE SPLICING

BURIED CABLE LOADING

Contents	Page
Use of Manholes.....	1
Loading Coil Cases.....	1
Arrangement in Loading Manholes.....	1

1. USE OF MANHOLES

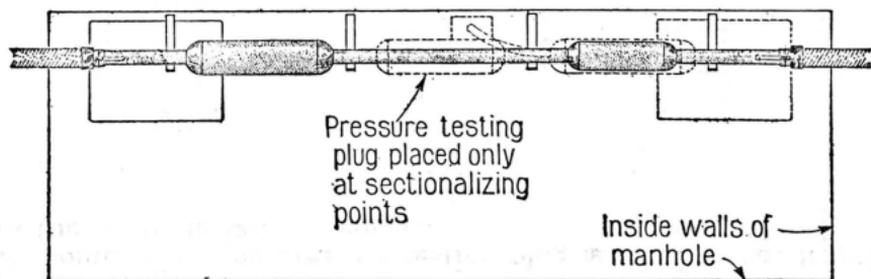
1.01 Manholes will generally be provided at loading points, to facilitate the installation of cases and the splicing work. The size of manholes will be specified on the detail plans.

2. LOADING COIL CASES

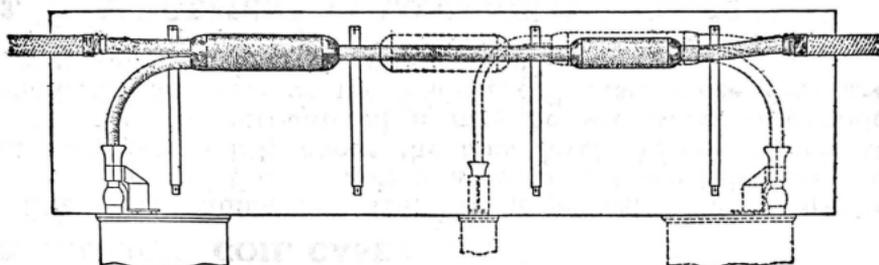
2.01 The loading coil cases will in general be buried in the floor of the manhole to a depth that will bring the top of the case slightly above the floor level. Where somewhat fluid soils are encountered it may be necessary to provide additional support for the loading coil cases since they are heavy and their bearing area is small.

3. ARRANGEMENT IN LOADING MANHOLES

3.01 The arrangement of the cables and loading coil cases in loading manholes for the "H" and "B-H" loading points in toll cable routes is illustrated in the following figure. At points where no pressure testing plug is required the length of the manhole can be reduced.



PLAN VIEW

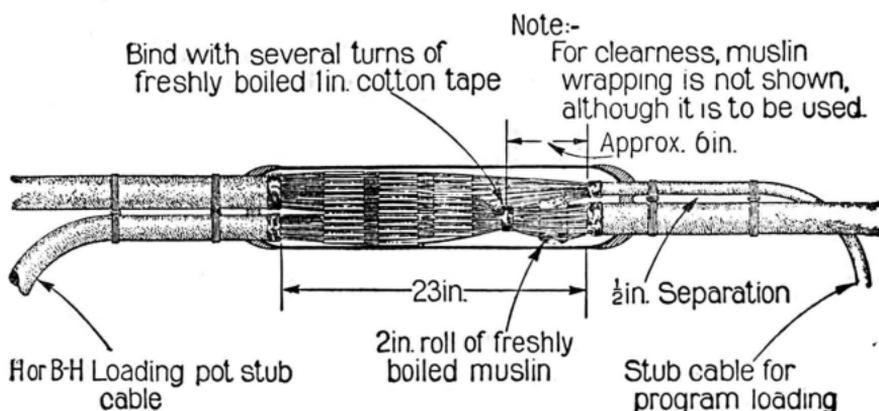


CROSS SECTION

3.02 After the protective coverings have been removed from the cable in the manhole, the sheath and steel tapes shall be bonded as described in Section G71.165.

3.03 At "B-H" or "H" loading points two sleeves will generally be required for installing the loading coil cases. If the entire cable is to be loaded initially each sleeve should be 26 inches long. This length sleeve will make it possible to provide enough slack in the conductors to facilitate possible future operations within the splice.

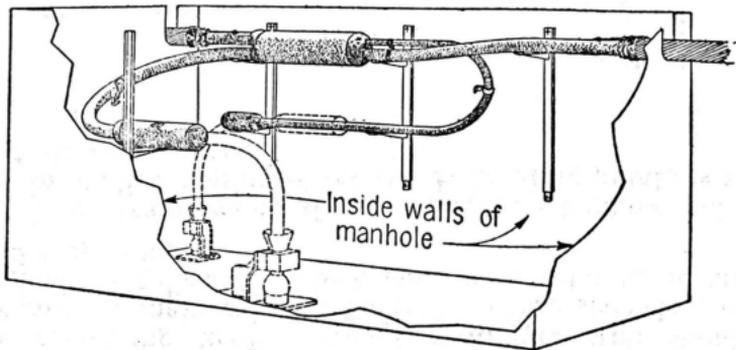
3.04 The method of providing slack is shown in the following figure. This should be done by inserting a roll of muslin toward the straight end or, if program loading is being installed, toward the end at which the program loading stub enters the splice.



3.05 If only one large loading coil case is to be installed in the manhole initially, one 26-inch sleeve should be provided for this loading and slack stored as described above. Slack shall be provided at the point where the additional case is later to be spliced to the cable, by removing 26 inches of lead sheath and pulling the cable together until the opening in the sheath is reduced to 17 inches. This will leave approximately nine inches of slack for making the splice when the future loading coil case is installed. The slack should be disposed of as in a balloon splice, twisting small groups of conductors around the core rather than by attempting to double them back on themselves. A 20-inch sleeve should then be used to cover the opening. This operation must, of course, be done before the other splice is made in the manhole.

3.06 If program loading is to be placed at the time the cable is installed, and only part of the other circuits are to be loaded initially, the program loading stub shall be placed in the splice containing the initial loading complement. Should it become necessary to provide program loading some time after the initial construction but prior to the installation of the remaining loading complement, the stub should be spliced into the main cable at the point where slack is provided by the balloon splice. A 20-inch split sleeve should be used to cover the opening.

3.07 The arrangement of the cables and loading coil cases in loading manholes for the B Loading points is shown in the following figure.



3.08 The method shown above for the "B" loading points assumes that only a part or none of the loading will be placed at the time the cable is installed. If the message and program loading is to be placed at the time the cable is installed, the loading coil stubs can be spliced directly to the main cable as illustrated for the "B-H" or "H" loading points. A 26-inch sleeve shall be provided and slack stored by means of a roll of muslin as described.