

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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COILS AND CASES

INSTALLING SPLICE LOADING COIL CASES— EXCHANGE

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1. GENERAL

- 1.01 This section describes the arrangement and method of installing exchange loading coil cases in splices.
- 1.02 Splice loading coil cases are used in loading a small number of conductors where the coils can be conveniently placed in a splice or in a sheath opening made for the purpose.
- 1.03 If this type of loading falls at a loading splice, large branch splice, or at locations where it would interfere with future splicing work it is advisable to use lead sleeve cases.

2. LOCATION OF SPLICE LOADING COILS

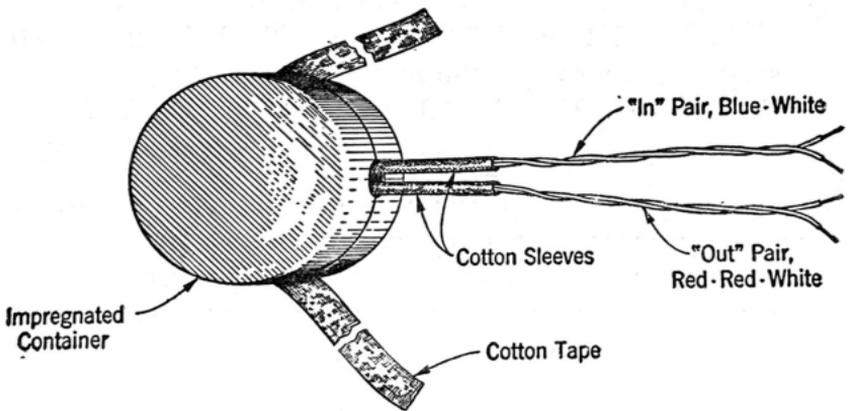
2.01 **In aerial cables** the coils should preferably be installed near a pole where there is no splice, by making a new sheath opening 24 inches from the through bolt. However, it is satisfactory to place the coils in an existing splice if the completed splice can be closed with a sleeve of reasonable diameter and length. Where the loading occurs at an H fixture it is generally advisable to place the cases in a separate sleeve, to avoid interference with other splicing operations. On new cable installations, the sleeve containing the cases should be located between the grade clamp and the pole. It is not advisable to locate the sleeve between the poles as this may interfere with the installation of cases to replace defective units in the

main cases. On existing installations the sleeve can be located beyond the grade clamp if this is necessary because of the location of the clamp or the setup of the main cable.

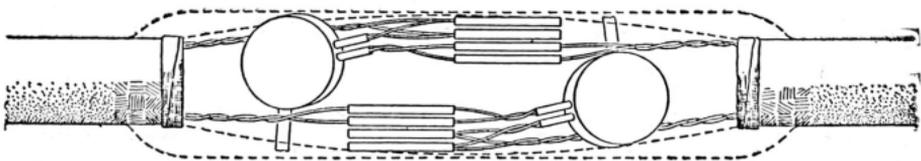
2.02 **Underground Cable:** In line manholes, it will generally be necessary to open the sleeve at the main splice and install the coils at this point. In loading manholes, the coils should be placed in a new sleeve when practicable, or at a straight splice. A larger diameter sleeve may be required to cover the splice on completion of the loading. The coils should not be placed in loading splices.

3. INSTALLING SPLICE LOADING COILS

3.01 **Individual Coils:** The following sketch shows a one-coil case of the type used for splice loading. The coil is encased in a small container which is filled with compound to minimize moisture absorption. The "In" and "Out" terminals are brought out in two pairs as illustrated.



3.02 The arrangement of individual coils and the method of connection are illustrated in the following sketch.

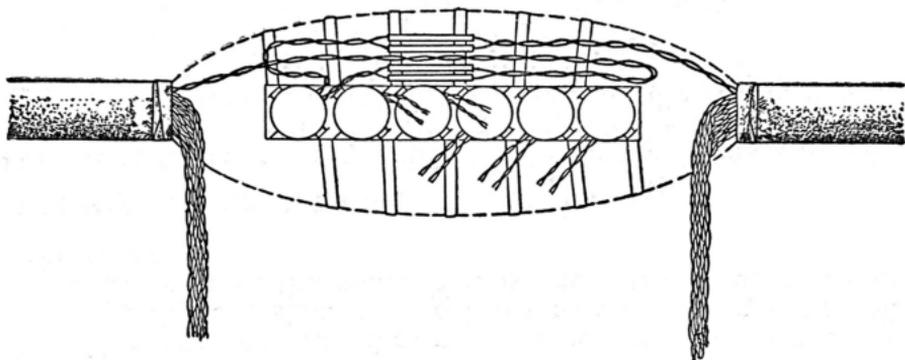


Muslin wrapping omitted for clearness

3.03 In order to avoid the use of excessively large lead sleeves at splices the cases should be laid against the unwrapped splice near the ends of the opening and should be wrapped together with the wires. In small cables, making a slight offset in the conductors within the splice will also help in keeping the sleeve size to a minimum.

3.04 The cases should not be placed at the top of the splice as they may interfere with the placing of a split lead sleeve.

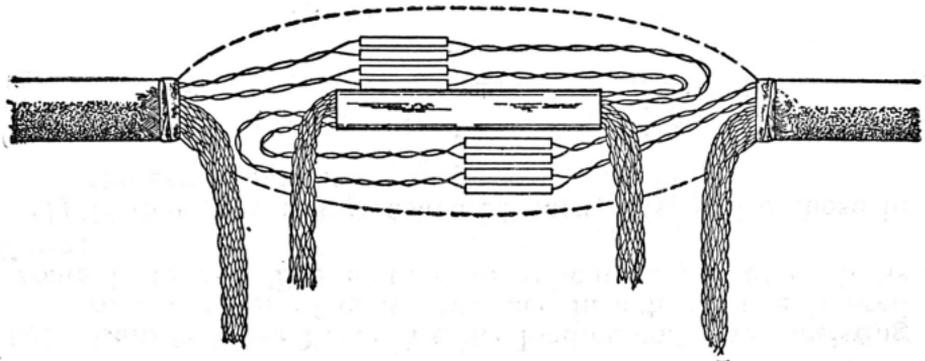
3.05 **Coils on Fibre Strip:** An assembly of six individual coils mounted on a fibre strip may be used when three to six coils are to be placed in a splice. The fibre board can be cut to make smaller coil groups if necessary. They are placed in the splice as illustrated below and spliced as shown in Paragraph 3.02.



3.06 **Coils in Fibre Tube:** A splice loading coil case consisting of a number of coils contained in a fibre tube is used in some instances. The method of splicing these cases is as follows:

- (1) If there are any non-loaded pairs, first splice these in the usual manner.

- (2) Then place the loading case in the splice and connect the coils to the cable conductors as illustrated below.



- (3) The arrangement shown above will ensure that there is sufficient slack in the leads to pull the loading coil case away from the splice if it is necessary to do work in the splice.

4. SPLICE IDENTIFICATION

4.01 Sleeves containing individual loading coil cases should be marked with a suitably stencilled strap cable tag placed on the cable adjacent to the sleeve, as illustrated below.

