BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G73.106.1
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PRESSURE TESTING
SHEATH PREPARATION FOR FITTINGS LEAD SHEATH

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1. GENERAL

1.01 This is a new section outlining the methods of preparing lead sheath cable for the installation of valves, flanges and other fittings directly on the sheath. These methods are designed to prevent reduction of the dielectric strength between the core and sheath at the location of the fittings.

1.02 The **Raised Sheath Method** must be used on cables having high dielectric core wrappings including all coaxial cables. Either this or the **Muslin Spacing Method** may be used on cables having normal dielectric strength.

1.03 **Tool List:**

Depressor, Core, Cable, B	For use in placing muslin between the core and the sheath in the muslin spacing method.
Lifter, Sheath, B	For use in raising the sheath to provide clearance between the sheath and core.

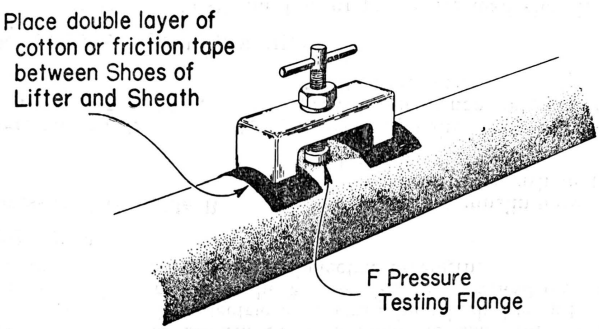
2. RAISED SHEATH METHOD

2.01 The raised sheath method of preparing lead sheath for placing a valve or other pressure fittings on a cable is as follows:

(1) Install an F flange in the usual manner but do **not** drill the hole through the sheath. Excessive use of solder around the flange will interfere with proper lifting of the sheath; for this reason, used the solder ring method instead of a soldering form when placing the flange.

(2) After the soldered flange has cooled, apply tape cushions on the sheath and position the B Sheath Lifter over the flange as illustrated below.

B SHEATH LIFTER



(3) Screw the threads on the lower end of the sheath lifter stem into the threads of the flange by turning the T handle.

(4) Then tighten the nut on the stem handtight against the yoke. With an open-end wrench take 3-1/2 turns of the nut to raise the flange and sheath about 1/8 inch. Remove the sheath lifter and tape.

(5) If an F valve or flange plug is to be installed in the sheath, place the valve in the flange and test the solder work for leaks.

(6) Remove the valve and drill the hole in the sheath using a cable drill. Do **not** break the core wrapping paper. Install the valve in the flange and test the threaded joint.

(7) If a C valve or copper ell is to be installed, the flange should be heated and removed. Wipe the excess solder from the sheath. Then proceed with the installation of the valve or ell.

3. MUSLIN SPACING METHOD

3.01 The muslin spacing method of preparing lead sheath for installation of pressure fittings is accomplished by tucking muslin between the sheath and core. This forces the

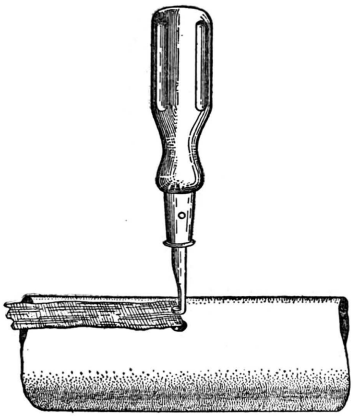
cable core away from the sheath to prevent electrical breakdown from core to sheath where the core wrapping paper is punctured. The procedure is as follows:

(1) Prepare two strips of dry muslin approximately 3/8 inch wide and 3 to 4 inches long, depending on the size of the cable.

(2) Bore the hole in the sheath with the cable drill in the usual manner.

(3) Place the end of the B Cable Core Depressor in the hole, and insert the toe under the edge of the sheath. Then rotate the depressor so as to smooth any projections resulting from the drilling operation.

(4) To insert the muslin, lay the end of one strip across the opening as illustrated in the following sketch and push it into the hole. Then tuck the muslin under the sheath lengthwise of the cable with the toe of the depressor.



(5) Remove the core depressor and move the muslin strip over the hole. Then repeat the tucking operation until a separation of about 3/16 inch is obtained between core and sheath.

(6) Tuck the second strip of muslin under the sheath in the opposite direction in the same manner.

(7) Puncture and tear the core wrapping paper with a bone knitting needle to ensure a free flow of air.