BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

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AT&T Co Standard

CABLE SPLICING—GENERAL
SETTING UP ALPETH AND STALPETH SHEATH CABLES

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1. GENERAL

1.01 This Section describes the method of setting up and placing temporary and permanent ties and is applicable to both alpeth and stalpeth sheath cables. Because of the elasticity of the polyethylene sheath the methods used for setting up lead sheath cable are not applicable to these cables.

1.02 In setting up alpeth and stalpeth sheath cable avoid any sharp bends and twisting such as may occur where two bends in different planes are close together.

1.03 All temporary ties should be made with the Strap Cable Bender or with muslin bandage. Do not use houseline or lashing wire.

1.04 This section has been reissued to discontinue the practice of taping the alpeth sheath from the duct to the first cable racks, to include the information on stalpeth sheath cable and to show a new method of making permanent ties with the lashed cable support.

2. SETTING UP CABLE

2.01 If it is necessary to clean the cable sheath it should be done with water.

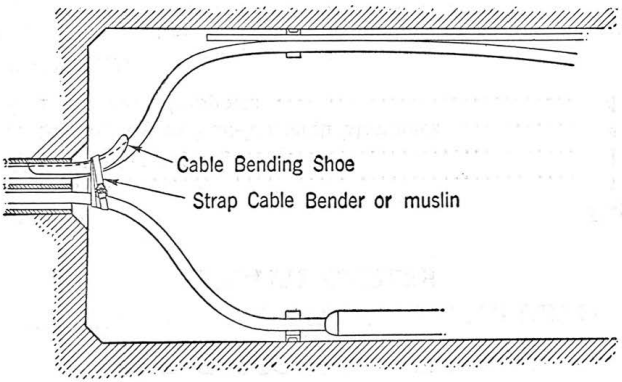
2.02 Straighten the cable from the duct entrance to the point where the sheath will be removed. Do not attempt to remove the slight set or curvature which may have been caused by the position of the cable on the reel.

2.03 Prepare the cable and mark the ends of the bends in the usual manner.

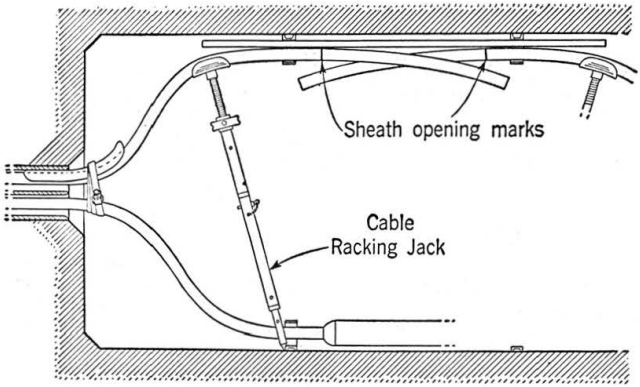
2.04 **Small Diameter Cable:** On cables smaller than 1-1/2 inches in diameter set up the cable in position and lash it temporarily to the hook nearest the duct to hold it in place. It may be necessary at some locations to block the cable away from the rack to permit placing the auxiliary sleeve, making the wrapped joint and wiping. With the cable so positioned, lash it to the cable hooks or other firm support.

2.05 **Large Diameter Cable:** The set-up of cables 1-1/2 inches in diameter and larger can be simplified by using a cable racking jack to bend and hold the cable in position at each side of the splice as outlined below.

(1) Place the cable bending shoe in the duct to minimize kinking or buckling as illustrated below. Open the shoe, if necessary to prevent binding on the cable. Secure the shoe in position with a strap cable bender or with a muslin tie attached to a cable rack or to another cable is indicated below. A board, placed on the cable rack hooks will be useful in aligning the end and maintaining the proper distance from the wall.

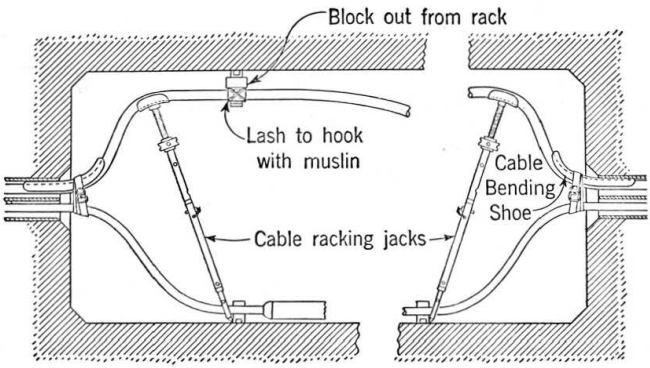


(2) Set up each end of the cable and mark the sheath opening as illustrated below.

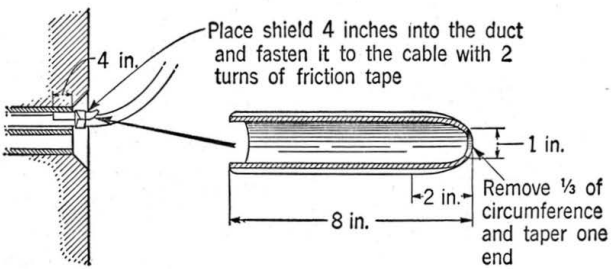


(3) If necessary, release the jacks enough to permit placing the auxiliary sleeves and making the wrapped joints.

(4) If, because of lack of clearance from the wall, the splice can not be made in its final racking position, block the cable out from the racks and with the jacks force the cable toward the corners of the manhole until the correct splice opening is obtained. The cable should be held in this position with the jacks, as illustrated below, while splicing the conductors, placing the main sleeve, and wiping the joints.



2.06 After the cable has been set up, replace the cable bending shoe with a shield. Make the shield from a piece of polyethylene removed from the end of the cable and install it as illustrated below.



3. SETTING UP IN PULL-THROUGH MANHOLES

3.01 The set-up in cable which is pulled through a manhole can be made as outlined in the Practices for lead sheath cable.

3.02 In large size cable, it will be helpful to use the cable racking jacks in making the bends.

4. PERMANENT SUPPORTS

4.01 After the splice is completed and racked in its permanent position replace any temporary ties with permanent supports. Lashed cable supports should be used but ties of lead lashing wire may be used where it is impractical to use lashed cable supports. The two methods of support are outlined below.

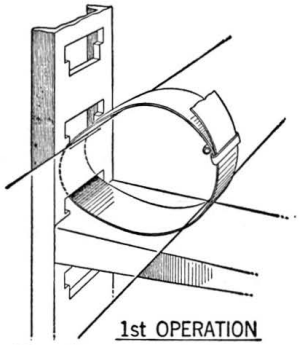
4.02 **Lashed Cable Support:** Various methods of supporting the cables with lashed cable supports are as follows:

(a) Lash single-racked cables and the inner cable of double-racked cables to the cable racks.

(b) If the inner cable of double-racked cables is lead covered and the outer cable is stalpeth or alpeth lash the outer cable to the inner cable.

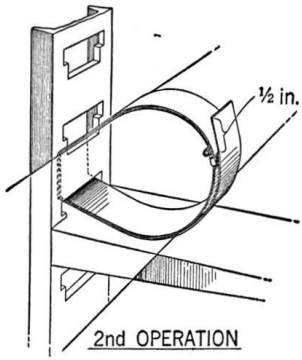
(c) If both the inner and outer cables are polyethylene sheathed lash the outer cable to the inner cable provided the inner cable is already lashed to the cable rack.

(d) The lashed cable support is placed as outlined below:



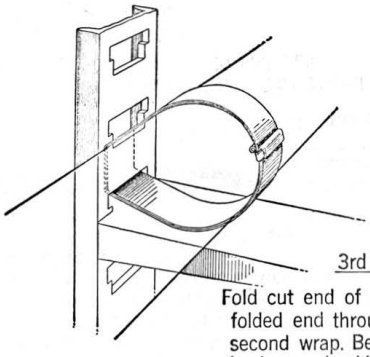
1st OPERATION

Thread curved end of support into upper hole of cable rack, then out through lower hole. Wrap support around cable and thread through buckle.



2nd OPERATION

Make two loose wraps around cable and cable rack, pull tight after completing second wrap. Before passing second wrap through buckle, cut off excess about ½ in. beyond buckle.



3rd OPERATION

Fold cut end of strap, then pass folded end through buckle, completing second wrap. Bend folded end back over buckle as shown.

4.03 **Lead Lashing Wire Ties:** Permanent ties of lead lashing wire are installed as shown below. Use polyethylene shims, made from the sheath, under the lashing wire as indicated. Ties to the end wall of the manhole may be used effectively, as illustrated below, where there is no better means to hold the cable in place.