BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G52.610.1
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AT&T Co Standard

CABLE SPLICING — AERIAL
E SLACK PULLER

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1. GENERAL

1.01 This section replaces Issue 1 and outlines the use of the E Slack Puller in splicing and repairing aerial cable supported by 16M or smaller strand.

1.02 This section has been reissued to include the E Slack Puller. Information has been included on use of Slack Pullers at Splice Cases and T-type Terminals and when the B Ladder Support is used with an extension ladder as is used by one man working alone.

1.03 In lashed cable, it is desirable that the top of the lead sleeve be as close to the strand as practicable. Arranging the sleeve in this position and avoiding sharp bends in the cable between the wiped joints and the point where the cable comes in contact with the strand, will avoid damage to the cable sheath as a result of expansion and contraction.

1.04 In new cable work, the slack puller is used to deflect the strand and thus provide the necessary separation between the strand and the cable for splicing. After the joints have been wiped, the puller is removed, thereby allowing the sleeve to come up to the strand.

1.05 The puller can also be used to advantage in repair operations in lashed cable as well as in ring supported cables under tension. Deflecting the strand provides the slack necessary for working on the conductors.

1.06 While the operation and the method of use outlined below is for the E Slack Puller, these same instructions may be used for the superseded types of slack pullers in use in the field.

1.07 Before making a sheath opening, place lashing wire grips or clamps, or cable lashing clamps about 3 feet from each end of the proposed sheath opening, then cut and turn back the lashing wire. Exercise care to avoid scoring the cable sheath with the end of the lashing wire when setting up or terminating the lashing wire.

1.08 In marking the location of a splice opening, measurement marks on the cable should be made with rings of No. 3 Scotch Tape. Under no circumstance allow the sheath to be scored.

2. PRECAUTIONS

2.01 The slack puller should not be used on rusty, pitted strand as such strand is likely to be broken by the slack puller. Where slack is required in rusty, pitted strand, the tension jack should be used.

3. DESCRIPTION

3.01 The E Slack Puller, which is illustrated in the sketch in Paragraph 4.01, consists of an arch-shaped frame with grooved rollers at each end, and a lifting screw at the center. The lifting screw has a hook at one end which is engaged to the strand; the other end has a thrust type ball bearing set in the base and a handle which operates the screw.

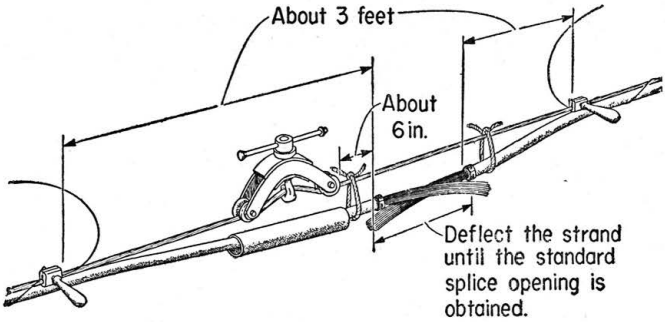
4. METHOD OF USE WITH AERIAL PLATFORM

4.01 **Lashed Cables—Wiped or Wrapped Joints in Lead, Alpeth or Stalpeth.**

(a) **At Splices between Lengths of Cable** the slack is obtained as follows:

(1) With the cable lying along the strand, mark the location of the splice opening on the sheath, as follows: If the air temperature is 60°F. or above, make the distance between the marks 3/8 inch greater than the standard splice opening. If the temperature is less than 60°F., make the distance between the marks 3/4 inch greater than the standard opening.

(2) Lower and support the cable, as shown below.



Platform and ladder have been omitted for clearness

(3) Place the puller about 6 inches away from either end of the proposed splice. **Then turn the screw on the puller until the standard splice opening is obtained.** In some cases, it may be necessary to clamp the cable to the strand by means of grade clamps in order to prevent slipping of the cable through the lashing as the strand is being pulled. The grade clamps should be placed about 4 feet from each end of the proposed splice.

(4) Make the splice, place the sleeve, and wipe the joints in the usual way.

(5) Then loosen the screw until the puller can be removed, and support the cable and sleeve and terminate lashing wire as outlined in the lashed cable sections covering the method of supporting splices.

(b) **At Splices Where Cable Is Not Cut** the slack is obtained in the following manner:

(1) Mark the standard splice opening on the sheath and then remove the sheath.

(2) Place the puller on the strand on the side of the splice away from the pole.

(3) Turn the screw on the puller until the desired amount of slack is obtained.

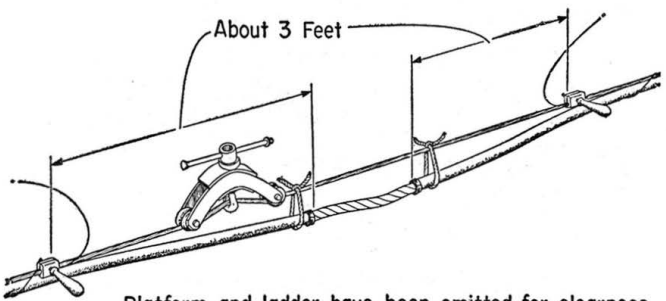
(4) Before the sleeve is placed over the splice, make sure that the splice has the standard opening.

(5) Then place the lead sleeve, wipe the joints and remove the puller. Terminate lashing wire and support cable and sleeve.

(c) **Maintenance Work:** The procedure to be followed will depend on whether a lead sleeve is to be opened or sheath is to be removed.

(1) If a sleeve is to be opened, proceed as follows: Make two marks on the sheath 3 feet apart, one on each side of the sleeve. Remove the sleeve, place the puller on the strand and turn the screw until the desired slack is obtained in the conductors. After the wire work has been completed, adjust the tension in the strand, if necessary, to obtain the original 3-foot separation between the marks. Place the lead sleeve, wipe the joints, remove the puller and lash the cable and sleeve to the strand.

(2) If a sheath opening is to be made, proceed as outlined in Paragraph 4.01 (b).



Platform and ladder have been omitted for clearness

4.02 **Lashed Cables—Splice Cases and T-type Terminals in Lead, Alpeth or Stalpeth.**

(a) The slack is obtained in the same manner as outlined in Paragraph 4.01. Make the splice and install the splice case or T-type Terminal as covered in other sections of the Practices. Then remove the slack puller.

4.03 **Cable Supported in Rings**

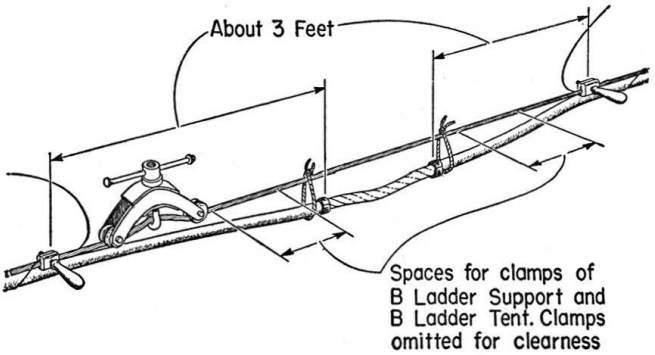
(a) Where slack is required in cables supported in rings, to facilitate working on the conductors, proceed as follows: Place temporary grade clamps about 3 feet from each end of the splice. Remove the rings and sleeve supports between the clamps and then remove the lead sleeve, making note of the length of the splice opening. Install the puller

and deflect the strand until the desired slack is obtained. After the wire work is completed, adjust the tension in the strand, if necessary, to obtain the original splice opening. Remove the grade clamps after the sleeve has been wiped.

5. METHOD OF USE WITH B LADDER SUPPORT

5.01 Lashed Cables

(a) The slack is obtained in the same manner as outlined in Paragraph 4.01, except that the slack puller is usually placed just outside the clamps of the B Ladder Support and the B Ladder Tent, if present, as shown below. Make the splice in the usual manner and wipe the sleeve or close the splice case or T-type Terminal. Then remove the slack puller.



5.02 Cable Supported in Rings

(a) The slack is obtained in the same manner as outlined in Paragraph 4.03.