

**BELL SYSTEM PRACTICES**  
**Outside Plant Construction**  
**and Maintenance**

**SECTION G56.649.2**  
**Issue 2, April, 1956**  
**AT&T Co Standard**

## **BURIED CABLE SPLICING**

### **KS-16191 CABLE TERMINAL BOX**

#### **(POST OR POLE MOUNTED)**

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### **1. GENERAL**

1.01 This section describes the post or pole mounted KS-16191 Cable Terminal Box used in terminating, splicing, and loading polyethylene insulated cables in buried urban and rural distribution systems. It is reissued to include changes in methods and materials. Issue 1 is replaced.

1.02 The KS-16191 Cable Terminal Box described herein can be used with cables as large as 1.6 inches in diameter and provides terminating facilities for as many as 51 pairs or loading for as many as 16 pairs. Pairs not terminated or loaded can be looped or spliced in the box.

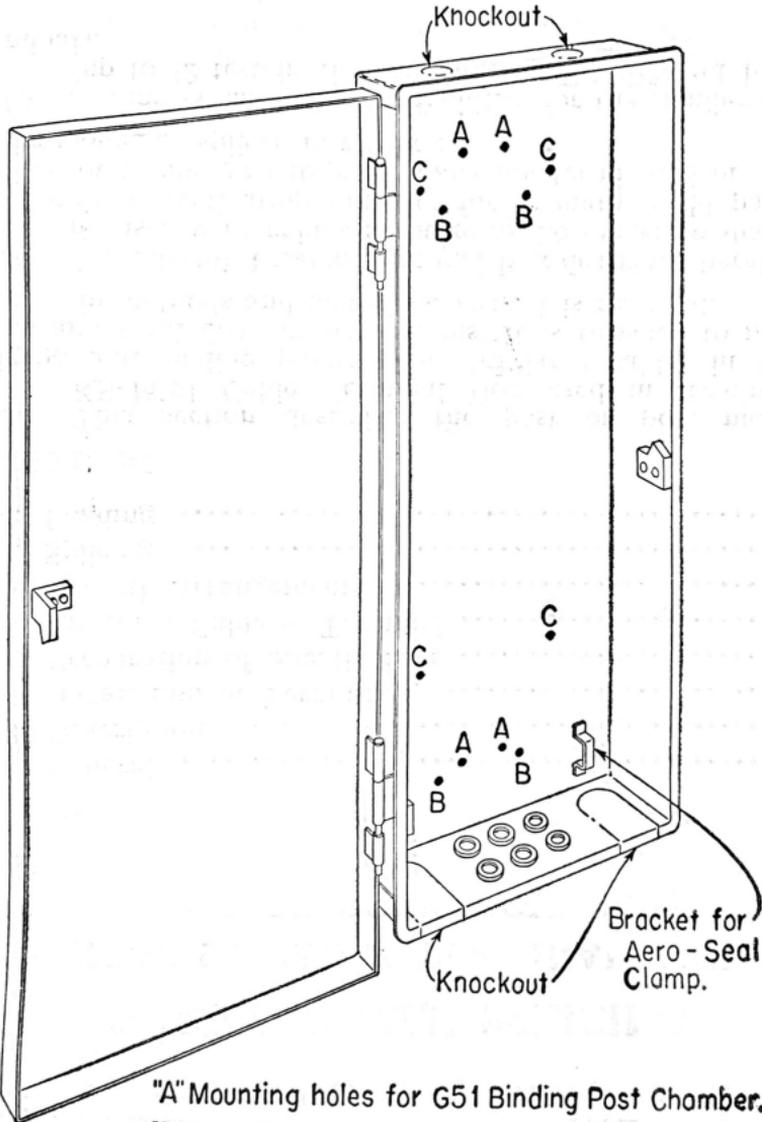
1.03 Section G56.649.1 covers facilities for the smaller cables (up to 12 terminations) using the F-51577 and F-51602 Terminals.

### **2. DESCRIPTION**

2.01 The galvanized sheet metal housing approximately 23 inches high, 10 inches wide and 2-7/16 inches deep, in which terminal blocks can be installed to make up the required assemblies, is illustrated on Page 2. A mounting saddle is provided with each KS-16191 Cable Terminal Box. The box is

equipped with a gravity type catch and has four knockouts, two at the top and two at the bottom to accommodate entering cables. There are also six grommets at the bottom for drop or buried wires.

### KS-16191 CABLE TERMINAL BOX

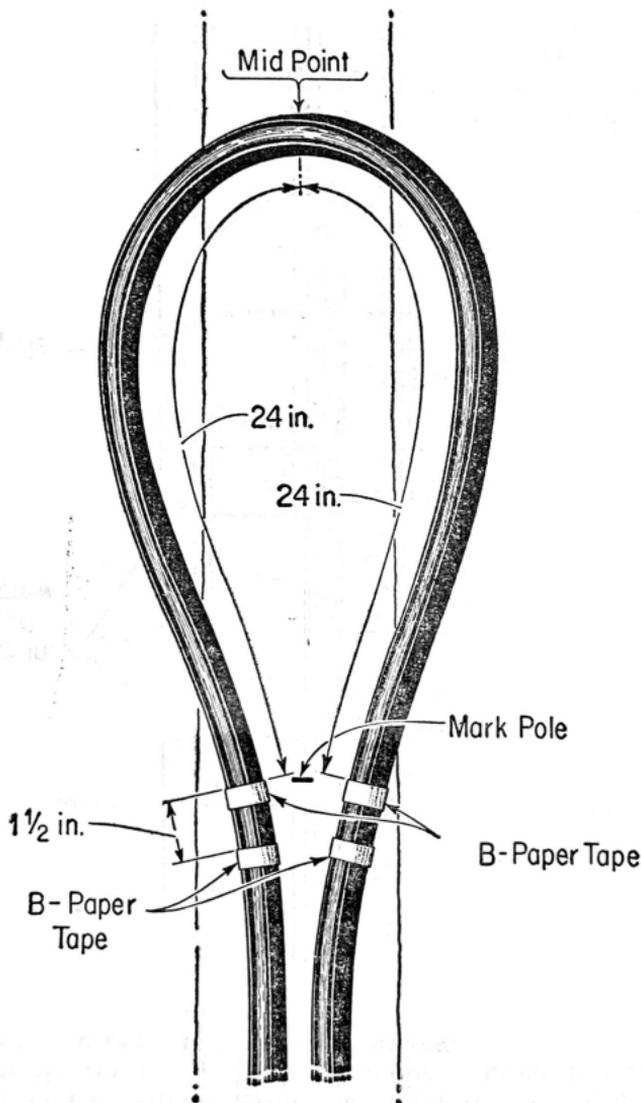


- "A" Mounting holes for G51 Binding Post Chamber.
- "B" Mounting holes for 57A Connecting Block
- "C" Mounting holes for 54A Cable Terminal

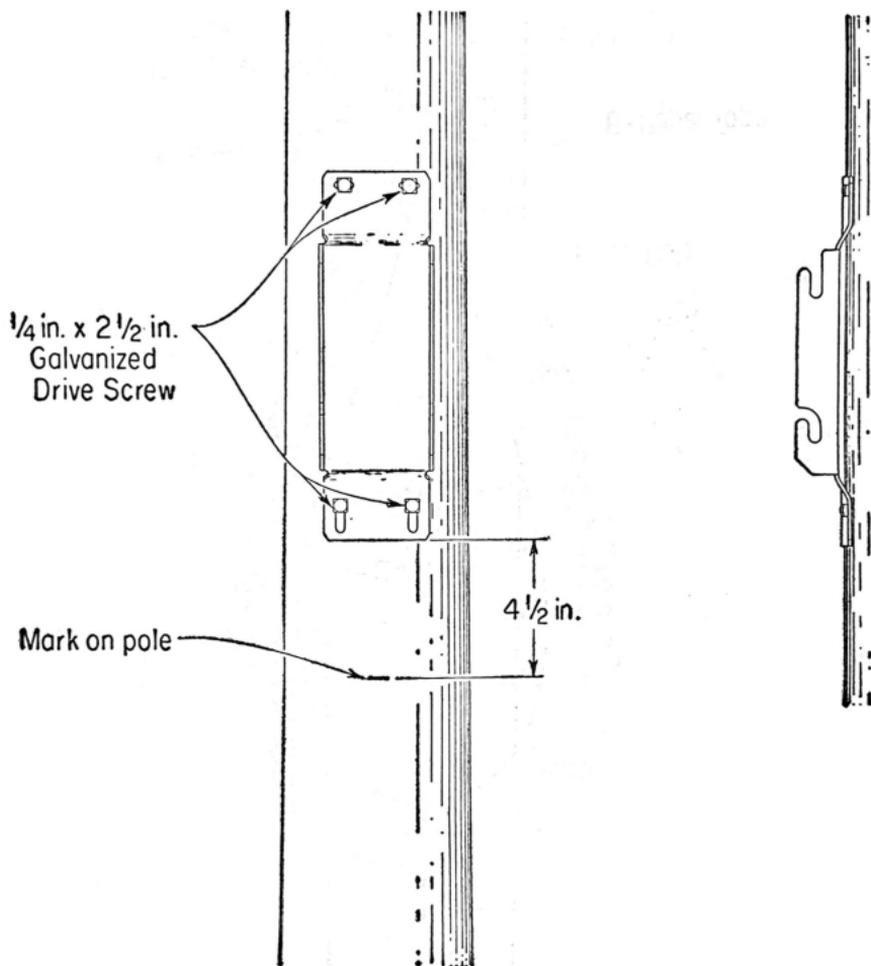
### 3. INSTALLATION OF TERMINAL

3.01 Sufficient cable will be looped at a post or pole during the cable placing operation to permit the bottom of the box to be placed at the desired height above the ground level.

3.02 Mark the mid-point of the loop at the top. Then place four B Paper Tape markers on the sheath located as illustrated below. Mark the pole at the location of the inner tape markers as illustrated.



3.03 Move cable away from pole. Then position the mounting saddle on the pole 4-1/2 inches above the mark and mount it on the pole as illustrated below.

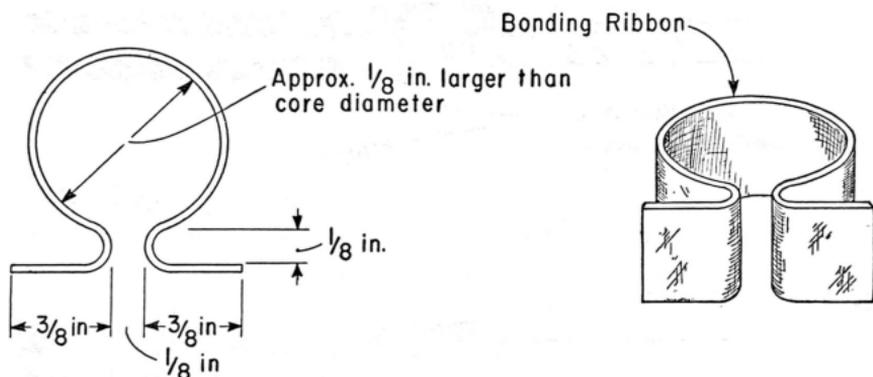


3.04 Mount box on saddle and tighten the four screws securely.

3.05 Mount terminal block assembly in box using proper mounting holes as illustrated in Paragraph 2.01. Then mount the ground connector in one of the unused mounting holes in the terminal as illustrated in Paragraph 5.04.

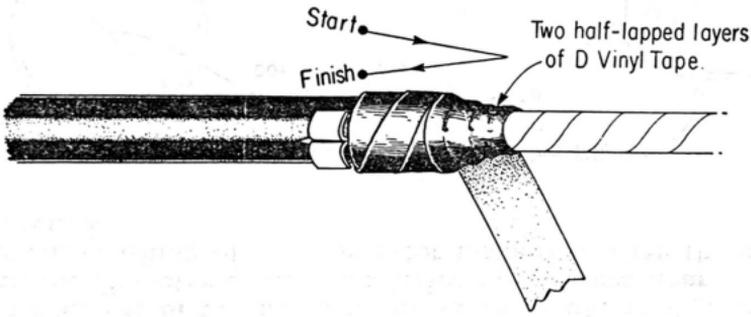
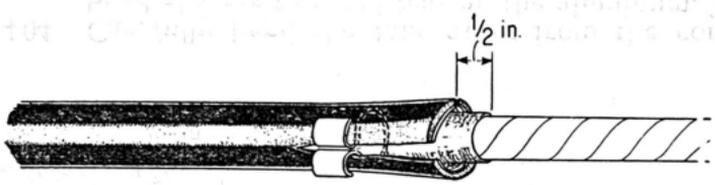
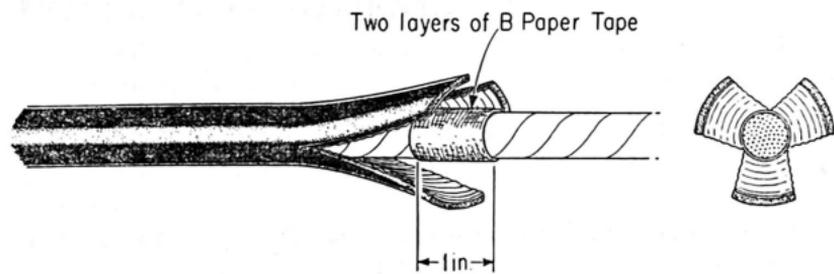
#### 4. PREPARATION OF SHEATH ENDS

- 4.01 Remove sheath between inner paper tape markers in the usual manner. Remove inner paper tape markers.
- 4.02 With the scissors prepare tabs of approximately equal width by making longitudinal cuts through the polyethylene and metal layers to the edge of the outer paper tape markers as illustrated below. On cables up to 1 inch in diameter three tabs should be cut. On larger cables it is desirable to cut at least four tabs. Avoid injuring the core wrapper.
- 4.03 Remove paper tape markers. Then prepare an inner clamp of a strip of bonding ribbon as illustrated below. **The diameter of the clamp when closed should be slightly larger than the diameter of the core including the core wrap.** This will prevent crushing of the conductor insulation when the clamp is tightened.



- 4.04 Carefully bend the tabs away from the core. **Do not bend sharply** to avoid tearing the aluminum. Then place the inner clamp as illustrated on Page 6.

WORK ON THE TERMINAL  
 KS-16191 BOX FOR THE  
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4.05 Remove core wrapper to vinyl tape collar.



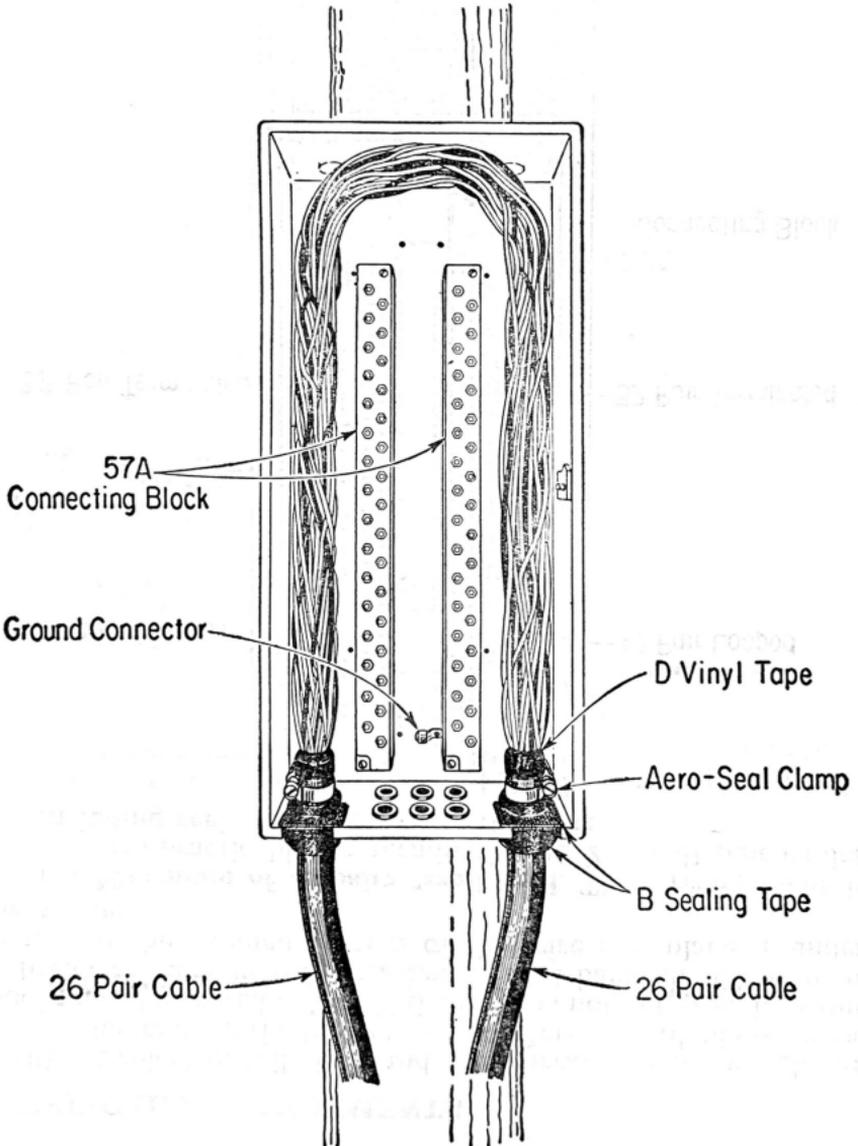
**5. INSTALLING CABLE IN TERMINAL**

- 5.01 Remove two knockouts in bottom of KS-16191 Box.
- 5.02 Place a collar of B Sealing Tape on the sheath where it enters the box slightly larger than the diameter of the knockout.
- 5.03 Place cable in box. Then place Aero-Seal Clamp through bracket in housing and around cable and tighten securely. The cable should be so positioned that the inner clamp



over the cable core is directly under the Aero-Seal Clamp. On cables up to 1.2 inches in diameter use Aero-Seal Clamp QS-100M16S. On larger cables, or at locations where two cables enter the same knockout use the standard Sealing Clamp. ←

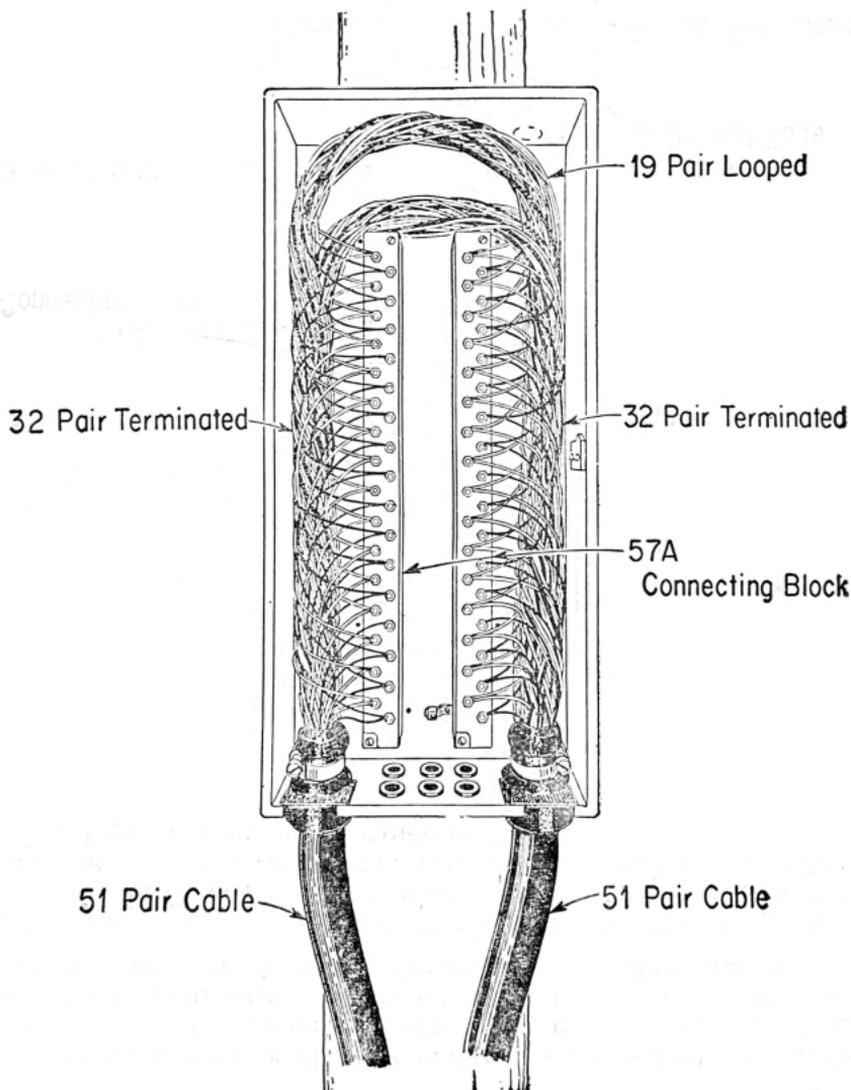
5.04 Close any remaining openings in the knockouts with B Sealing Tape. It is also desirable to plug the unused tapped holes in the rear of the terminal box with small wads of sealing tape to prevent entrance of insects.



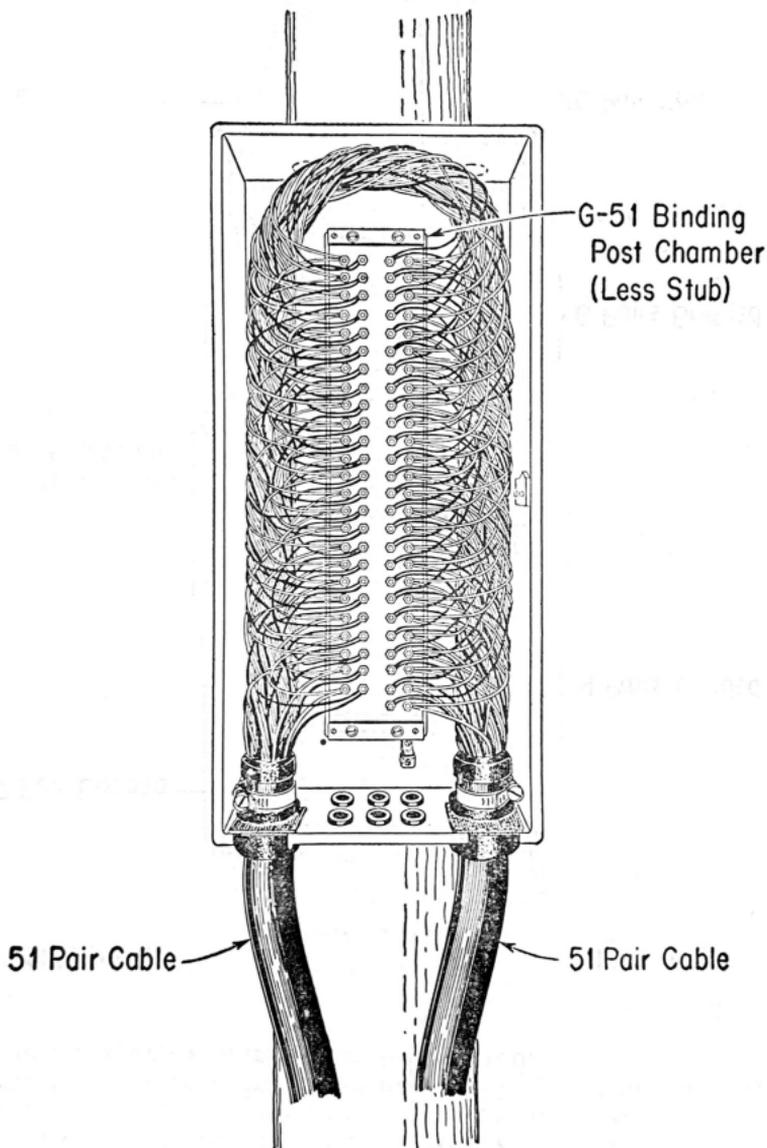
## 6. TYPICAL ARRANGEMENTS

6.01 Typical installations and cable arrangements which can be made in the box using the different available terminal blocks are illustrated below. If the cable is not cut, it is desirable to break the conductor insulation, slide it back about  $\frac{3}{4}$  inch, then loop the skinned portion of the wire and place it under the washer.

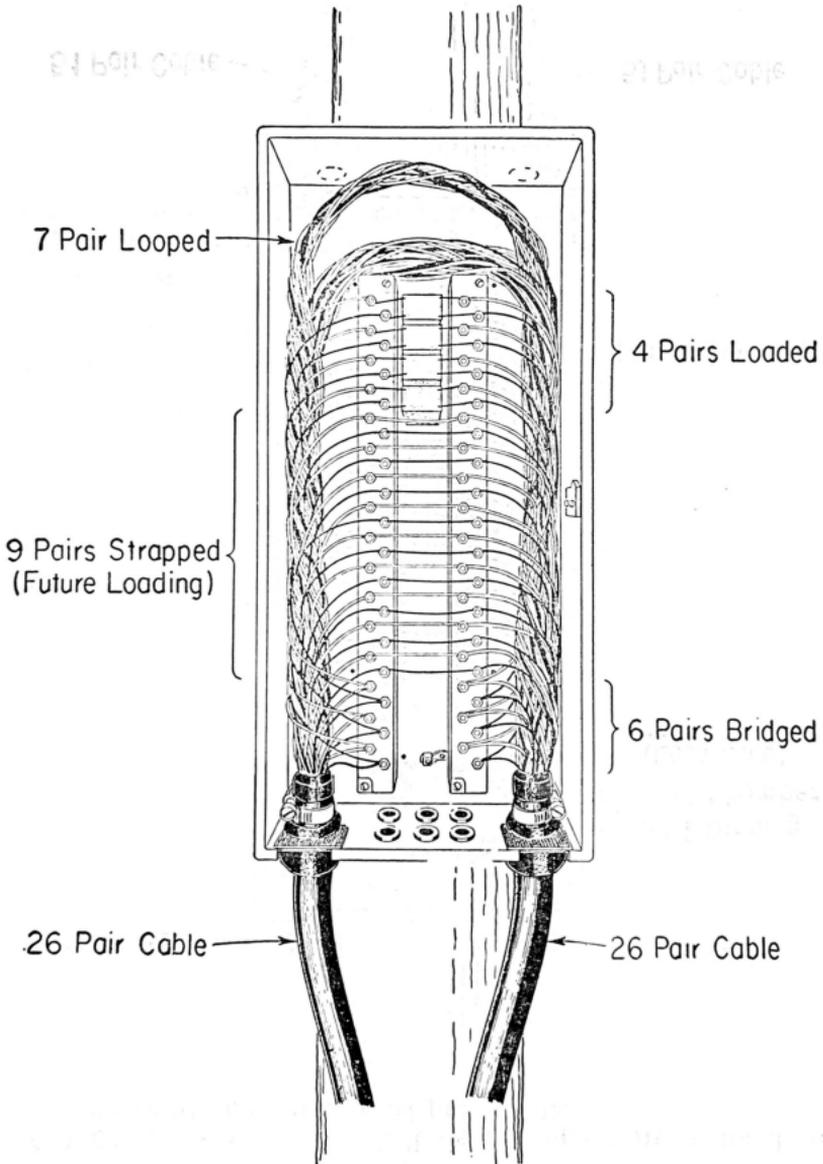
- (a) **Maximum of 32 pairs terminated.** This arrangement is also practicable for terminating 16, 26, or 31 pair cables including reel ends of cables in these sizes.



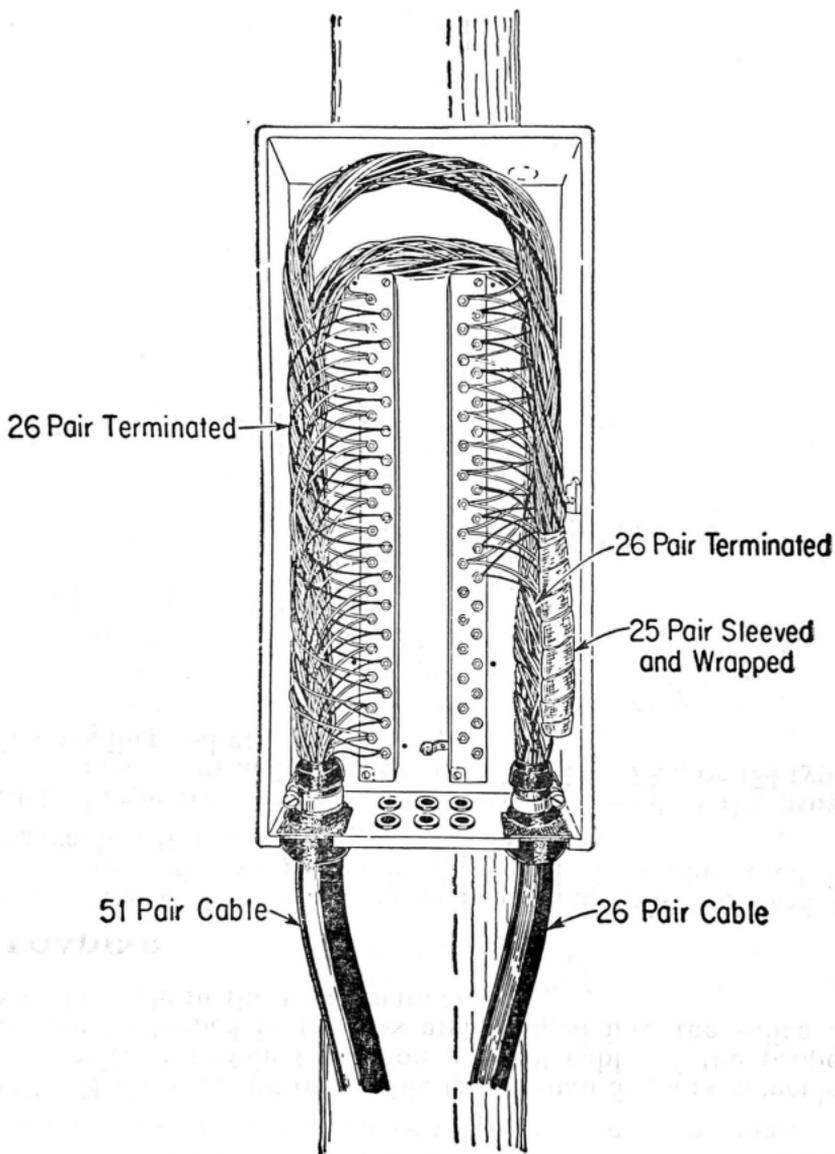
(b) **51 pairs terminated.** This arrangement is used principally at reel ends of 51 pair cables.



(c) **Combining loading, terminating, and looping.** In the arrangement illustrated below 4 pairs are loaded, 9 pairs are strapped through to maintain continuity (provision for future loading) 6 pairs are bridged and made available for service drops in the terminal and 7 pairs looped through. The combinations illustrated can be changed depending on the number of pairs to be loaded (16 pairs maximum) and the number of pairs to be terminated.



6.02 At junctions of different size cables the ends of the excess pairs can be sleeved and tied back as illustrated below.



## 7. SPLICING

7.01 At reel ends of cables larger than 51 pair or at locations where more than 16 pair are to be loaded a splice can be made on a post or a buried splice made in the usual manner.

7.02 If the reel end of a cable larger than 51 pairs coincides with a terminal location a small cable of the proper size may be looped in the box and bridged into the splice in the main cable in the usual manner.

## 8. LOADING

8.01 The 637 type high dielectric loading coils are used if the coils are placed in the terminal as illustrated in Paragraph 6.01 (c).

8.02 Large complements shall be splice loaded in the usual manner using high dielectric 171, 172A, 173A, or 174 type splice loading coil cases.