

## B GROUNDING ROLLER

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The roller must be connected to a low-impedance ground to minimize the voltage which will be impressed on the conductor in the event of an accidental contact with an energized power conductor.

**1.04** Satisfactory low-impedance grounds are described in Section 627-230-203.

**1.05** Information covering bonding and grounding requirements is covered in Section 627-020-005.

### 1. GENERAL

**1.01** This section covers the description and use of the B grounding roller.

**1.02** This section is reissued to add information on the use of the B grounding roller with suspension strand that is spliced with a strandlink or a B strand connector and to show the latest Model B grounding roller. Since this reissue is a general revision, no revision arrows have been used to denote significant changes.

**1.03** The B grounding roller provides a means of maintaining a continuous ground connection to moving conductors such as strand, open wire, or winch line being placed from a stationary reel.

**1.06** Where a satisfactory low-impedance ground is available, B grounding rollers are used when placing strand, open wire, prelashed cable, self-supporting cable, or winch line under the following conditions:

- (a) On joint use pole lines
- (b) When crossing any electric power conductors
- (c) At any location where there is a possibility of accidentally contacting power conductors.

**1.07** Strandlinks or B strand connectors, used for splicing strand, may be pulled through the B grounding roller.

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2. DESCRIPTION

2.01 The B grounding roller of current design is shown in Fig. 1. Figure 2 shows a B grounding roller of earlier design.

2.02 The rollers and roller axles are the only replacement parts for the B grounding roller.

2.03 To provide a means of attaching the roller to a pole, a hole is located in the frame as shown in Fig. 1 and 2.

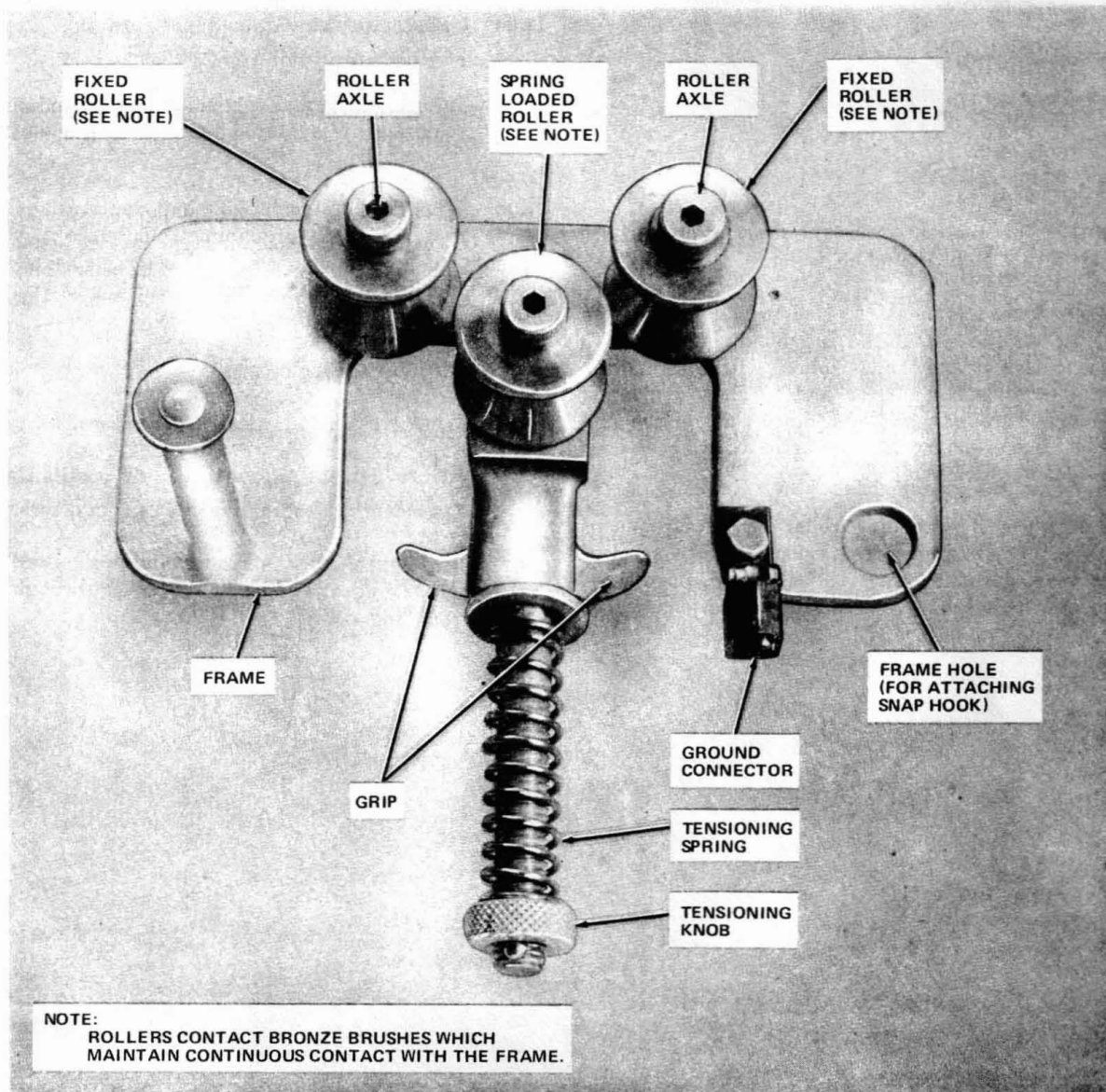


Fig. 1—B Grounding Roller—Current Design

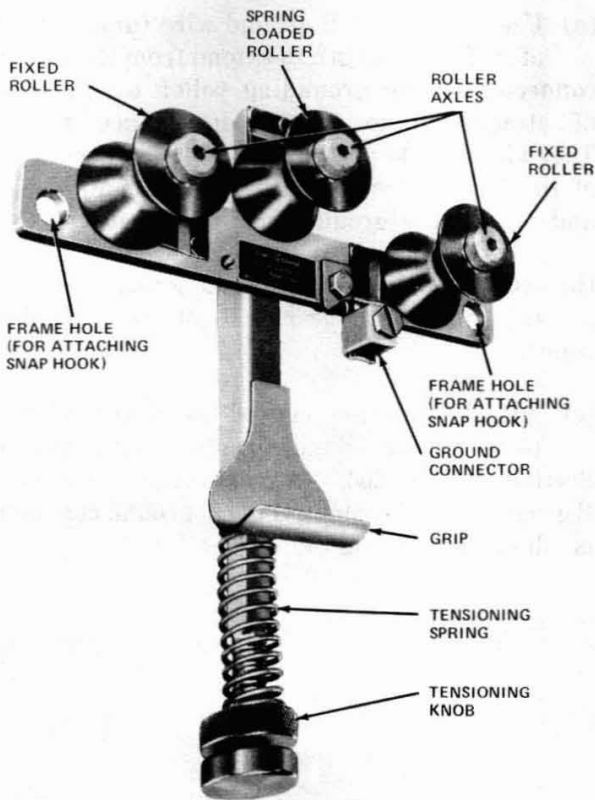


Fig. 2—B Grounding Roller—Early Design

### 3. PRECAUTIONS

3.01 Position the stationary reel, if possible, at or near a pole carrying suitable grounding facilities.

3.02 *Do not make ground connections above the space allocated for telephone attachments on the pole.*

3.03 Observe all precautions outlined in Section 620-105-010.

3.04 *Test any vertical power ground conductor to which the grounding roller is to be connected using the B voltage tester as described in Section 620-105-010.*

3.05 The grounding of strand, open wire, or winch line, using the grounding roller, shall be considered as *supplemental to*, and *not as a substitute for*, insulating gloves and other protective measures.

4. INSTALLATION

4.01 On the Pole

- (a) Use a 6- or 7-foot length of 3/8-inch manila rope with a snap hook on one end.
- (b) Tie the rope to the pole and attach the snap hook to one of the frame holes of the roller as shown in Fig. 3 and 4.

**Note:** Adjust the rope to allow the roller to extend about 3 feet out from the pole when pulling tension is applied.

4.02 Connection to Ground

- (a) Use a length of B ground wire (uninsulated) of sufficient length to extend from the ground connector of the grounding roller to the point of attachment to the low-impedance ground. The wire should be long enough to permit all of the pulling tension to be on the manila rope and not on the ground wire connection.
- (b) Attach one end of the B ground wire to the connector (see Fig. 3) of the grounding roller.
- (c) Attach the other end of the B ground wire to a low-impedance ground, as shown in Section 627-230-203. A connection between a B grounding roller and a vertical ground conductor is illustrated in Fig. 4.

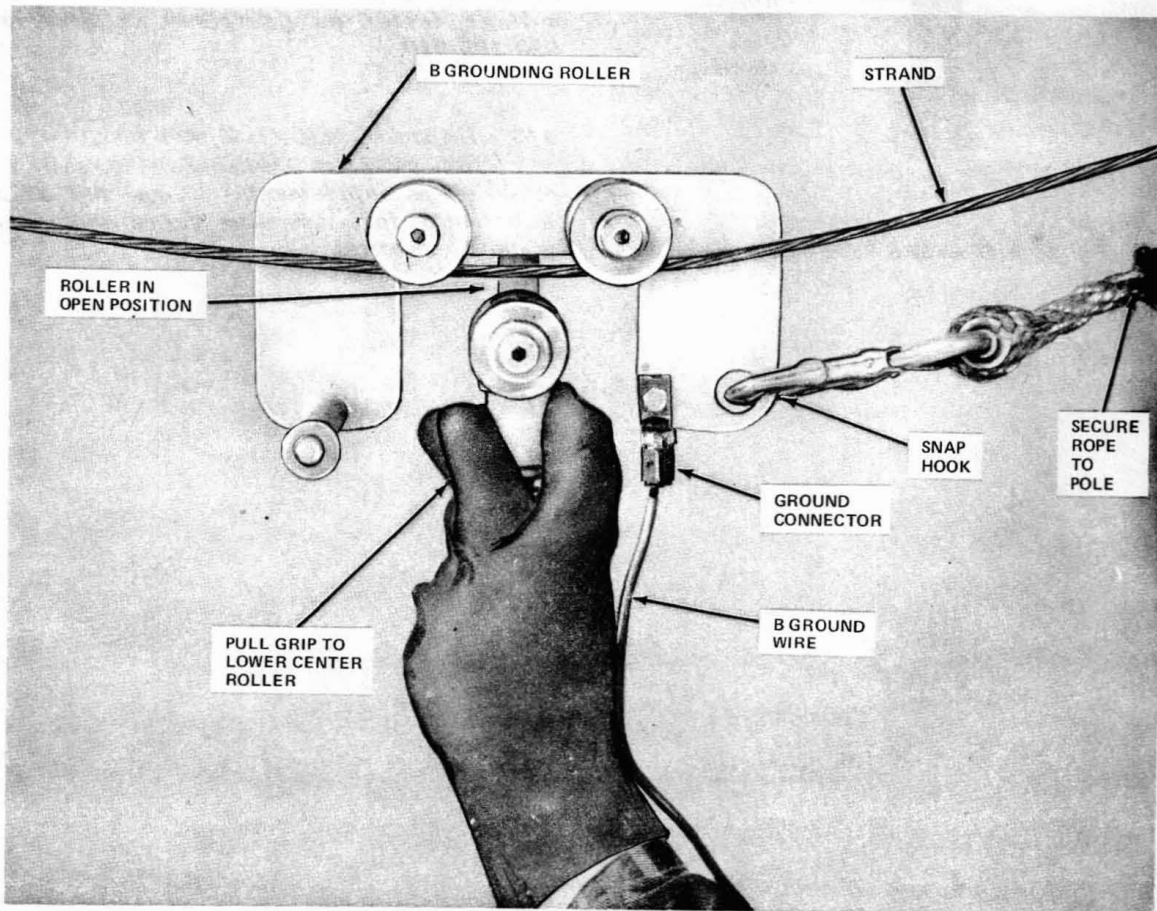
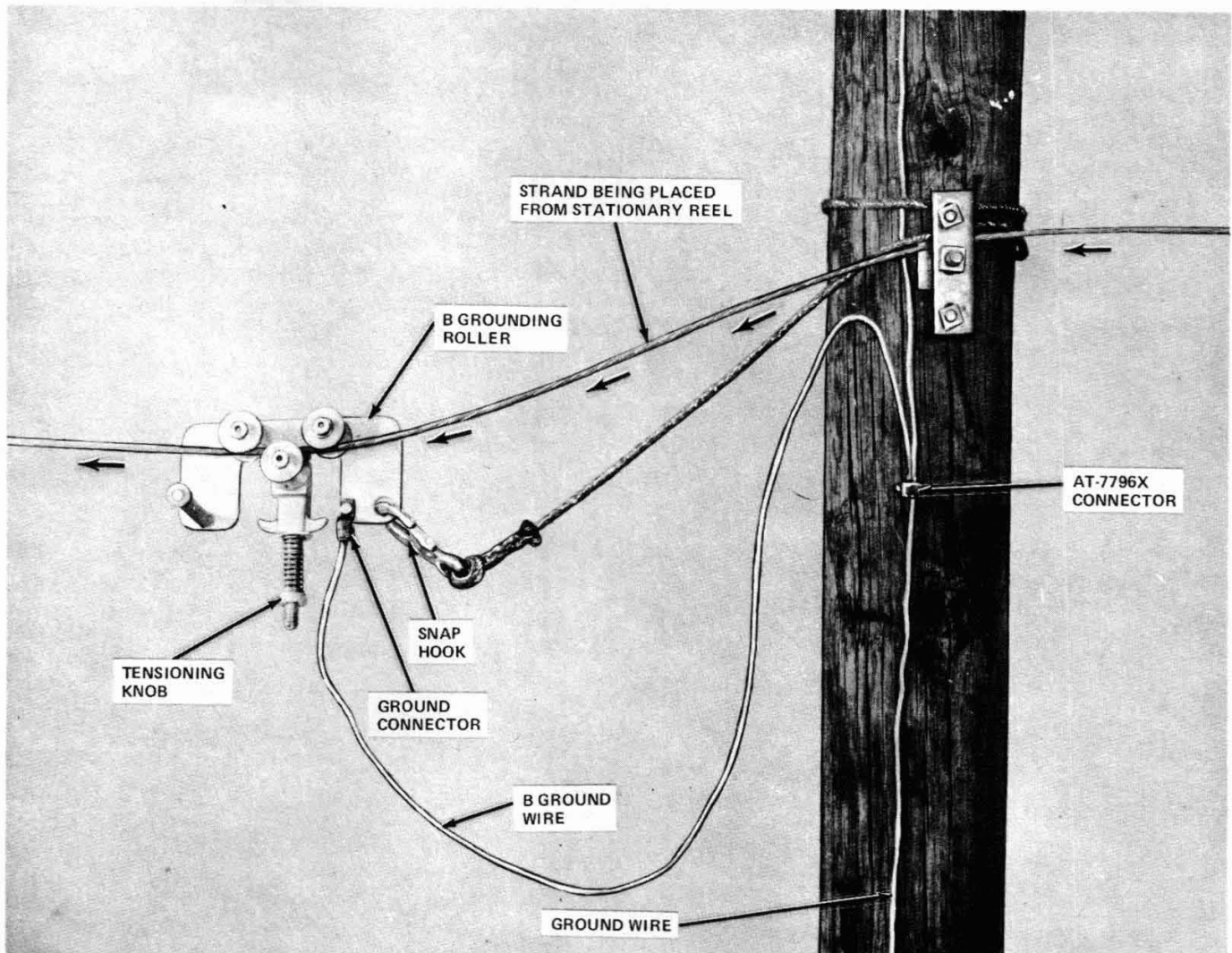


Fig. 3—Installing B Grounding Roller



**Fig. 4—B Grounding Roller Installed**

**4.03** Install the B grounding roller on strand, open wire, or winch line as follows:

- (a) Grasp the grounding roller with the fingers hooked over the grip.
- (b) Compress the tensioning spring, forcing the steel shaft and center roller to the open position as shown in Fig. 3.
- (c) Insert the strand open wire or winch line between the rollers and release the knob.

Figure 4 shows the completed installation.

**4.04** Adjust the knurled tensioning knob to ensure uniform contact between the rollers and the conductor, and to prevent accidental detachment of the grounding roller from the conductor.

**4.05** Do not use the grounding roller to support the conductor being placed. Use a wire rope snatch block, drive hook, suspension clamp, or other such suitable attachment to support conductors at the pole on which the grounding roller is attached.

**4.06** When slack is taken out of the strand, open wire or winch line at the reel end of the placing operation. The roller will pull back against the supporting attachment on the pole, but will continue to provide grounding contact.

**4.07** Remove the grounding roller after the conductor being placed has been tensioned, sagged, deadened, or otherwise permanently attached and grounded.