TERMINALS — INSIDE WIRING

EQUIPPING AND TERMINATING

1.00 INTRODUCTION

This section covers the equipping of the G-type and HS-6 inside wiring cable terminals, the mounting and wiring of the 30- and 31-type connecting blocks, and the installation of ground strips.

2.00 102-TYPE ADAPTERS — 30- AND 31-TYPE CONNECTING BLOCKS

2.01 The 102B, C, and D adapters are intended primarily as mountings for the 11-, 16-, and 26-pair sizes of 30- or 31-type connecting blocks, when inside wires or cables are terminated in the G-type or other cable terminal boxes at indoor locations.

2.02 Mounting screws for the 102-type adapters are furnished with the G-type cable terminal box. When 102-type adapters are mounted in other than G-type cable terminal boxes, two 3/4 inch, No. 8 RH blued wood screws may be used on wood backing, and two 3/8 inch, No. 8 self-tapping screws on metal backing.

2.03 The adapters are equipped with two machine screws and nuts to secure the connecting block to the adapter. The fiber fanning strip furnished with the adapter serves to retain the cable or inside wire conductors in their proper positions (see Fig. 1).

2.04 The 30- and 31-type connecting blocks consist of molded insulating strips and are available in 6-, 11-, 16-, and 26-pair sizes to terminate inside wires or cables at indoor cable terminals (see Fig. 2).

FIG. 2—30- AND 31-TYPE CONNECTING BLOCKS

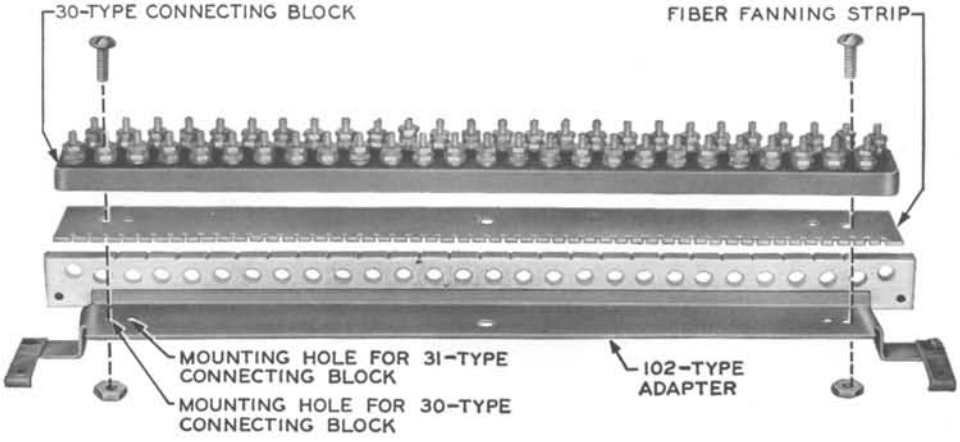

FIG. 1
ASSEMBLY OF CONNECTING BLOCK, FANNING STRIP, AND ADAPTER

3.00 ASSEMBLING TERMINAL

To assemble the G-type box with connecting block and associated adapter, proceed as follows:

1. Remove the proper knockout for the entering wires or cables, which may enter at either end of the terminal.
2. Assemble the connecting block, fanning strip, adapter, and the 4-type ground strip (when used).
3. Mount the adapter temporarily in the box (shown in Fig. 3) to facilitate terminating the inside wire or cable conductors.

4.00 TERMINATING

4.01 Generally, when terminating inside wire or cable on 30- or 31-type connecting blocks, the binding post on the right of the connecting block is considered the ring, and the binding post on the left, the tip.

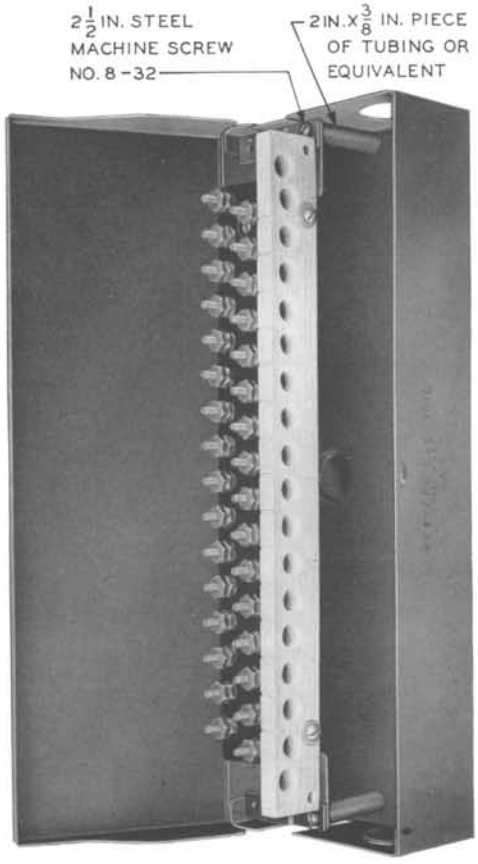

FIG. 3—TEMPORARY MOUNTING OF ADAPTER

4.02 Normally, the numbering sequence of the pairs is from top to bottom when the connecting block is mounted vertically, and left to right when mounted horizontally.

4.03 INSIDE WIRING CABLE

- Remove covering from the cable as required to terminate conductors.
- Pairs should be twisted to prevent splitting.
- Fasten cable to the adapter, using size of cable clamp required.
- Fan cable conductors, using the color code shown in Table A, and place each conductor in the slot of the fiber fanning strip opposite the proper binding post (see Fig. 4).

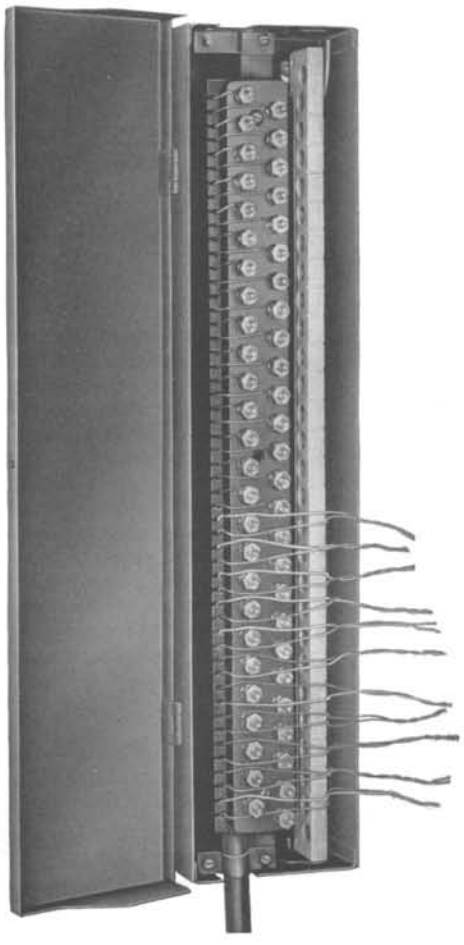

FIG. 4—TERMINATING INSIDE WIRING CABLE

TABLE A

Conductor Color Codes

Standard C Cable			D Cable		
Pair No.	Ring Wire	Tip Wire	Pair No.	Ring Wire	Tip Wire
1	Blue	White	1	Blue	White
2	Orange	White	2	Orange	White
3	Green	White	3	Green	White
4	Brown	White	4	Brown	White
5	Slate	White	5	Slate	White
6	Blue-White	White	6-10	Repeat First 5 Colors	Red
7	Blue-Orange	White	11-15	Repeat First 5 Colors	Black
8	Blue-Green	White	16-20	Repeat First 5 Colors	Yellow
9	Blue-Brown	White	21-25	Repeat First 5 Colors	Violet
10	Blue-Slate	White	26	Blue-White	White
11	Orange-White	White	27	Orange-White	White
12	Orange-Green	White	28	Green-White	White
13	Orange-Brown	White	29	Brown-White	White
14	Orange-Slate	White	30	Slate-White	White
15	Green-White	White	31-35	Repeat Colors 26-30	Red
16	Green-Brown	White	36-40	Repeat Colors 26-30	Black
17	Green-Slate	White	41-45	Repeat Colors 26-30	Yellow
18	Brown-White	White	46-50	Repeat Colors 26-30	Violet
19	Brown-Slate	White	51	Blue-Red	White
20	Slate-White	White	52	Orange-Red	White
21-40	Repeat First 20 Colors	Red	53	Green-Red	White
41-60	Repeat First 20 Colors	Black	54	Brown-Red	White
61-75	Repeat First 15 Colors	Red-White	55	Slate-Red	White
76*	Red	White	56-60	Repeat Colors 51-55	Red
			61-65	Repeat Colors 51-55	Black
			66-70	Repeat Colors 51-55	Yellow
			71-75	Repeat Colors 51-55	Violet
			76*	Red	White

Note: D inside wiring cable is also available in 101-pair size. This cable is constructed with a red-white pair (pair 101) in the center of four units. Each unit is color coded the same as the first 25 pairs in the present 26-pair, D inside wiring cable, as shown in the table above. Each complete unit of 25 pairs is bound with a different colored cotton binder. The binders are colored blue, orange, green, and brown in that order.

* Substituted for last pair in each cable.

4.04 JACKETED INSIDE WIRE

- The method of terminating jacketed inside wire at a GC-type cable terminal is shown in Fig. 5.
- Jacket should be removed approximately 1/2 inch from the wiring slots in the fiber fanning strip.

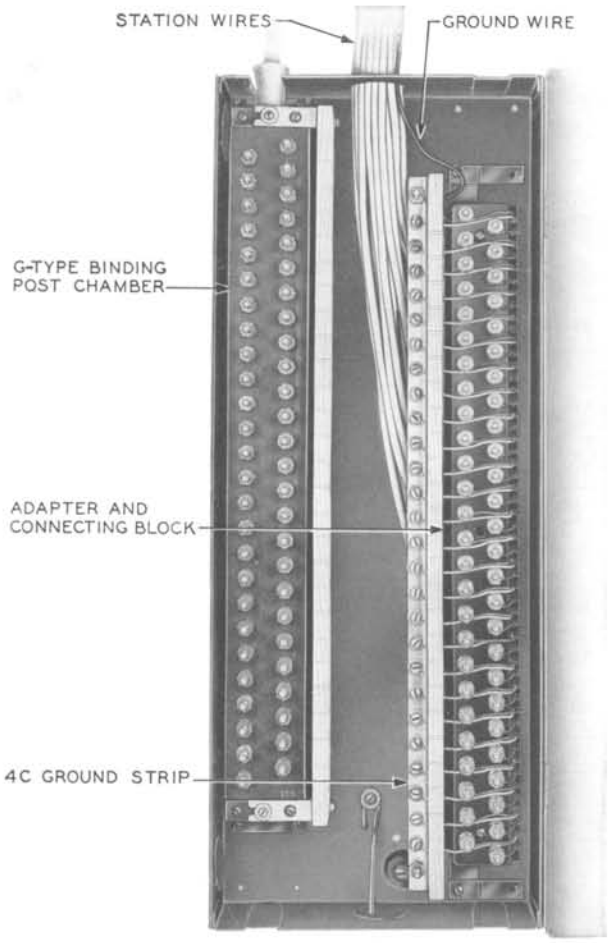

FIG. 5—TERMINATION OF JACKETED INSIDE WIRE

4.05 GS-TYPE INSIDE WIRE

- The method of terminating GS-type inside wire at a GC-type cable terminal is shown in Fig. 6.
- Ground lead of station wires is run under ground strip and between ground strip and fanning strip before being terminated on ground strip.
- Washers are placed between ground strip and fanning strip to provide sufficient clearance for ground lead.

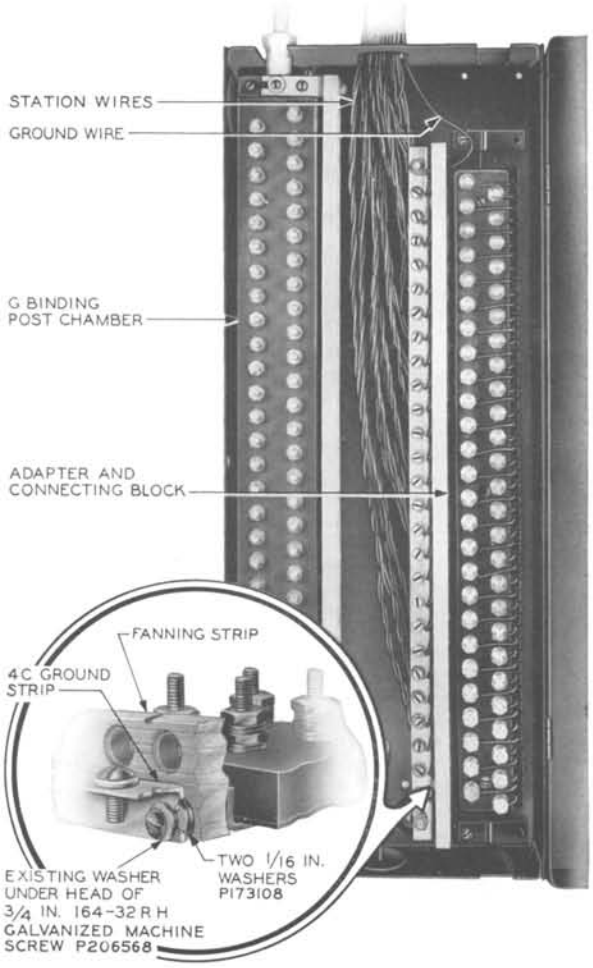

FIG. 6—TERMINATION OF GS-TYPE INSIDE WIRE

4.06 When terminating inside wire or cable conductors on 30- or 31-type connecting blocks and the conductors are brought through the slots of the fiber fanning strip, only enough slack should be left to enable the conductor to be reterminated in case of breakage at the time of termination (see Fig. 7).

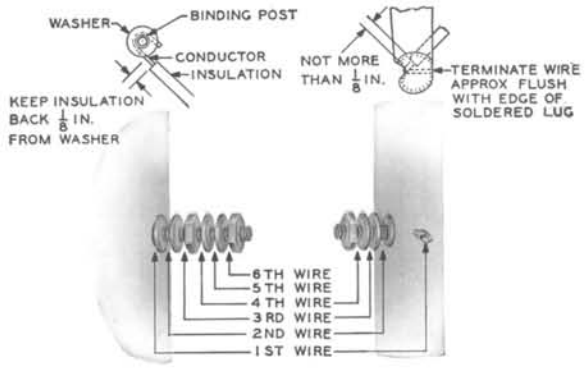

FIG. 7—SEQUENCE AND METHOD OF TERMINATION

4.07 After inside wire or cable conductors have been terminated and slack has been formed behind the adapter:

1. Detach adapter from the box and remove tubing or equivalent used to mount the adapter temporarily.
2. Insert the lower permanent mounting screw.
3. Lower U-shaped slot of the adapter on this screw.
4. Insert the upper mounting screw.
5. Tighten both upper and lower mounting screws.

4.08 The proper knockout should be removed from the HS-6 cable terminal box before the cable is placed and terminated. Fig. 8 shows the termination of cable.

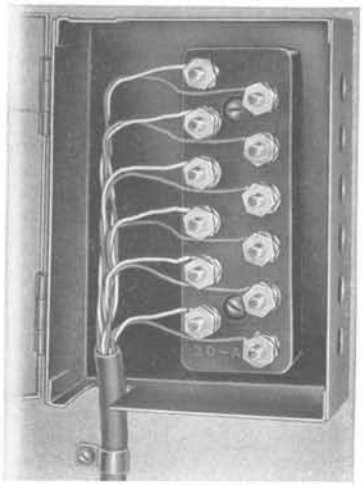

FIG. 8—WIRING OF HS-6 CABLE TERMINAL BOX

5.00 GROUND STRIPS

5.01 Ground strips are normally used to terminate station signaling or coin collector grounds at cable terminals. The most commonly used are the 2-, 4-, 5-, and 6-type ground strips.

5.02 The 2A ground strip is used on the G- and H-type binding post chambers and also on the LA- and LB-type fuse chambers. The 2A ground strip is equipped with two binding posts, each having one nut and six washers. The mounting screws for the 2A ground strips are a part of the G-, H-, LA-, and LB-type binding post chambers (see Fig. 9).

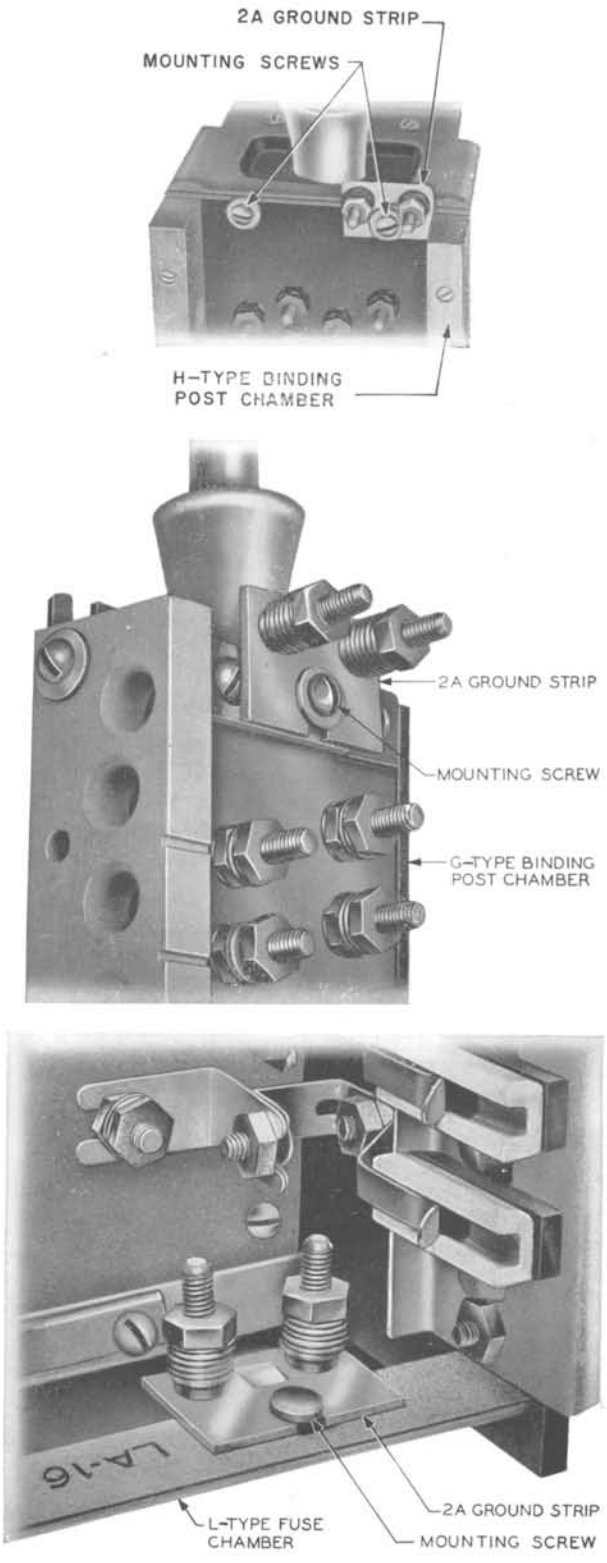

FIG. 9—METHODS OF INSTALLING 2A GROUND STRIPS

5.03 The 2B ground strip may be used in cable terminals where the 30- or 31-type connecting blocks are not mounted on 102-type adapters. The 2B ground strip is equipped with two binding posts, each having one nut and six washers (see Fig. 10).

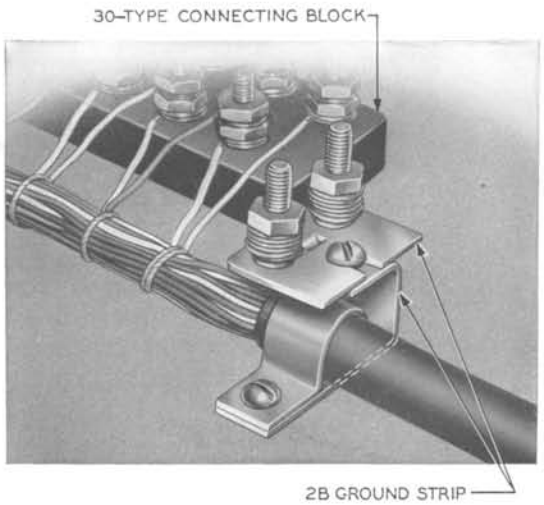

FIG. 10—METHOD OF INSTALLING 2B GROUND STRIP

5.04 The 4-type ground strips are available in three sizes:

- The 4A, for 102B adapters and 11-pair, G-type binding post chambers, is equipped with 11 screw terminals.
- The 4B, for 102C adapters and 16-pair, G-type binding post chambers, is equipped with 16 screw terminals.
- The 4C, for 102D adapters and 26-pair, G-type binding post chambers, is equipped with 26 screw terminals.

5.05 The 4-type ground strips are also equipped with two binding posts to terminate ground wire.

5.06 The 4-type ground strips are installed on the fanning strips of the 102-type adapters and G-type binding post chambers as shown in Fig. 11. The 4-type ground strip is attached with the same screws used to secure the fanning strip to the 102-type adapter or G-type binding post chamber, except where additional clearance is desired, as shown in Fig. 6.

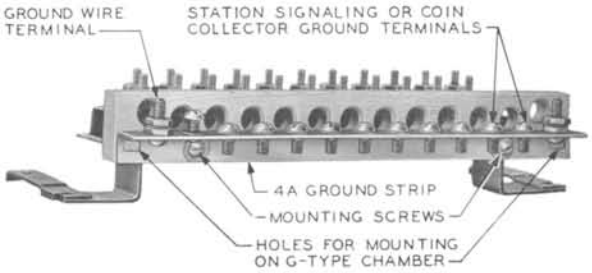

FIG. 11—METHOD OF INSTALLING 4-TYPE GROUND STRIP

5.07 The 5A ground strip is intended for use with the 10- and 16-pair, NC-, NE-, NF-, and NH-type cable terminals. The 5A ground strip is equipped with two binding posts, each having one nut and five washers. The mounting screw for the 5A ground strip is a part of the N-type cable terminal (see Fig. 12).

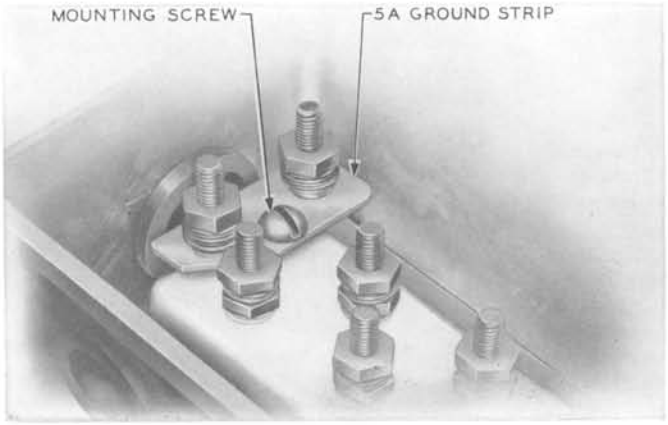

FIG. 12—METHOD OF INSTALLING 5A GROUND STRIP

5.08 The 6A ground strip is intended for use with the 26-pair, NC-, NE-, NF-, and NH-type cable terminals. The 6A ground strip is equipped with two binding posts, each having one nut and five washers. The mounting screw for the 6A ground strip is a part of the 26-pair, N-type cable terminals (see Fig. 13).

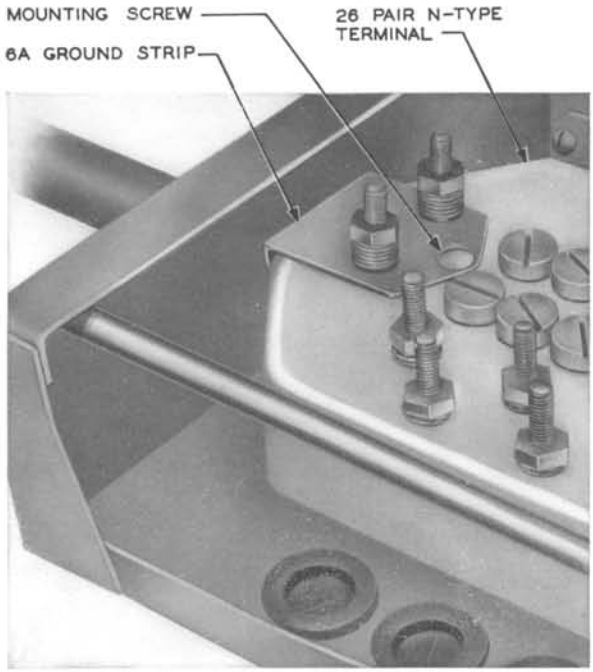

FIG. 13—METHOD OF INSTALLING 6A GROUND STRIP

5.09 The terminal ground strip is intended for use with cable terminals where it is not feasible to use the 2-, 4-, 5-, or 6-type ground strip. Attach the terminal ground strip to a wooden backboard by means of two 1 inch, No. 8 RH blued wood screws, or to metal backing with two 3/8 inch, No. 8 RH self-tapping screws (see Fig. 14).

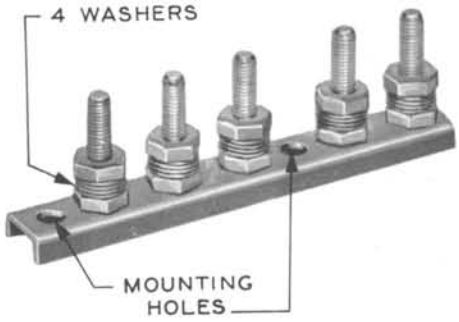

FIG. 14—TERMINAL GROUND STRIP

6.00 CLOSURES FOR CABLE TERMINAL BOX KNOCKOUTS

The P-375610 and P-290231 closures may be used with cable terminal boxes of types GA, GB, and GC (see Fig. 15) when a knockout is removed for the station wires or cables. In addition to being used as an aid in keeping the terminal box clean by filling the space not occupied by the station wires or cables, this closure may also be used to completely close the opening if the wires or cables are removed from the box.

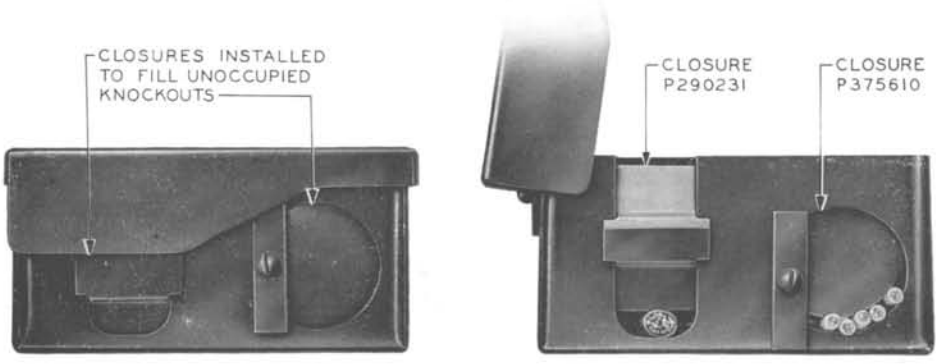

FIG. 15—USE OF CLOSURES