American Telephone and Telegraph Company

BELL SYSTEM PRACTICES
Teletypewriter and Manual
Telegraph Station and PBX
Installation and Maintenance

ADDENDUM P60.101
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Long Lines Department
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63C1 TELEGRAPH LOOP SWITCHBOARD

1. GENERAL

1.00 This issue supersedes Issue A.

1.01 This addendum covers the following items:

(a) Minor corrections in the text of Issue 2 of Section P60.101.

(b) Information on terminating a service telephone.

(c) Information on converting "miscellaneous" jacks in 63C1 switchboards for use as "set" jacks.

It is reissued to add Items (a) and (c) and to make additions to Item (b).

2.06 Change this paragraph to read as follows:

A series of mounting boards is available for installations requiring more than one 63C1 loop switchboard. These mounting boards are available in 8 shapes and sizes for arranging 2, 3, 4, 5, or 6 switchboards side by side, 2 switchboards one above the other, 4 switchboards in two rows of two each, and 6 switchboards in two horizontal rows of three each. The mounting boards which are made of wood, finished in walnut, are constructed to provide a space between the board and the wall to make room for fanning out the external wiring to the group of switchboards.

4. SERVICE TELEPHONE TERMINATION

4.01 When a service telephone is provided it should be terminated as described in Paragraph 4.02 if the loops are not equipped with wave shaping sets, and as described in Paragraph 4.03 if the loops are equipped with wave shaping sets.

4.02 When the loops are not equipped with wave shaping sets, the service telephone should be wired into the 63C1 switchboard. It should normally be wired to the "set" jack associated with the spare loop.

4.03 When the loops are equipped with wave shaping sets, it is necessary to provide means for disconnecting the wave shaping set from the loop on which the telephone is to be used so that voice transmission will be satisfactory. The recommended arrangement for this purpose is shown in Figure 8, which was reproduced from Long Lines Department Drawing S-8241-142. With this arrangement the telephone may be used with either of two loops, or may be disconnected from both loops, depending upon the position of the three position key.

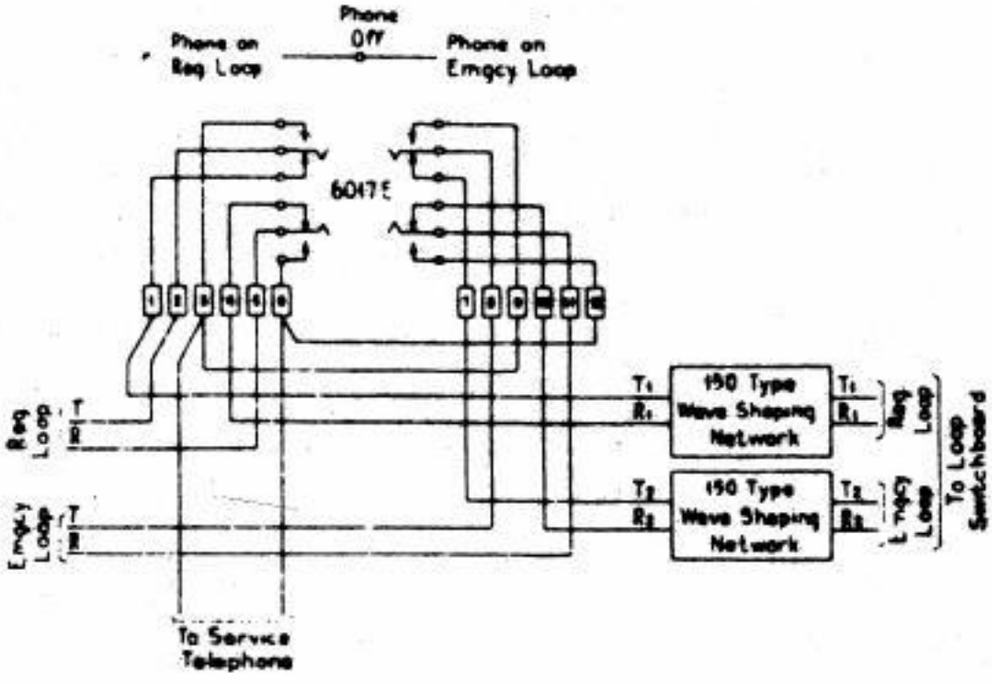


Fig. 8 - Connection of Service Telephone when Loops Are Equipped with Wave Shaping Sets.

5. CONVERTING "MISCELLANEOUS" JACKS TO "SET" JACKS

5.01 In some offices the equipment arrangements are such that it is desirable to have normally more than one unit of equipment connected to certain of the loops. This requires the use of additional "set" jacks. Where there are enough spare jack strips in the board this requirement can be taken care of by connecting jack strips in series as required.

However, if this procedure would result in the provision of more loop boards than would be provided otherwise, consideration should be given to providing the required "set" jacks by replacing some of the "miscellaneous" (303A) jacks with 438C jacks, wiring them as "set" jacks. This would provide a total of two "set" jacks per strip. In general, economy and the availability of material should be the governing factors in determining which method to use.

5.02 The material required for each such jack replacement is one 438C jack and a small amount of 22 DSCL wire, single. The jack circuit wiring before modification is shown in Figure 1. The jack circuit wiring after modification is shown in Figure 9, which was reproduced from Long Lines Department Drawing S-8610-143.

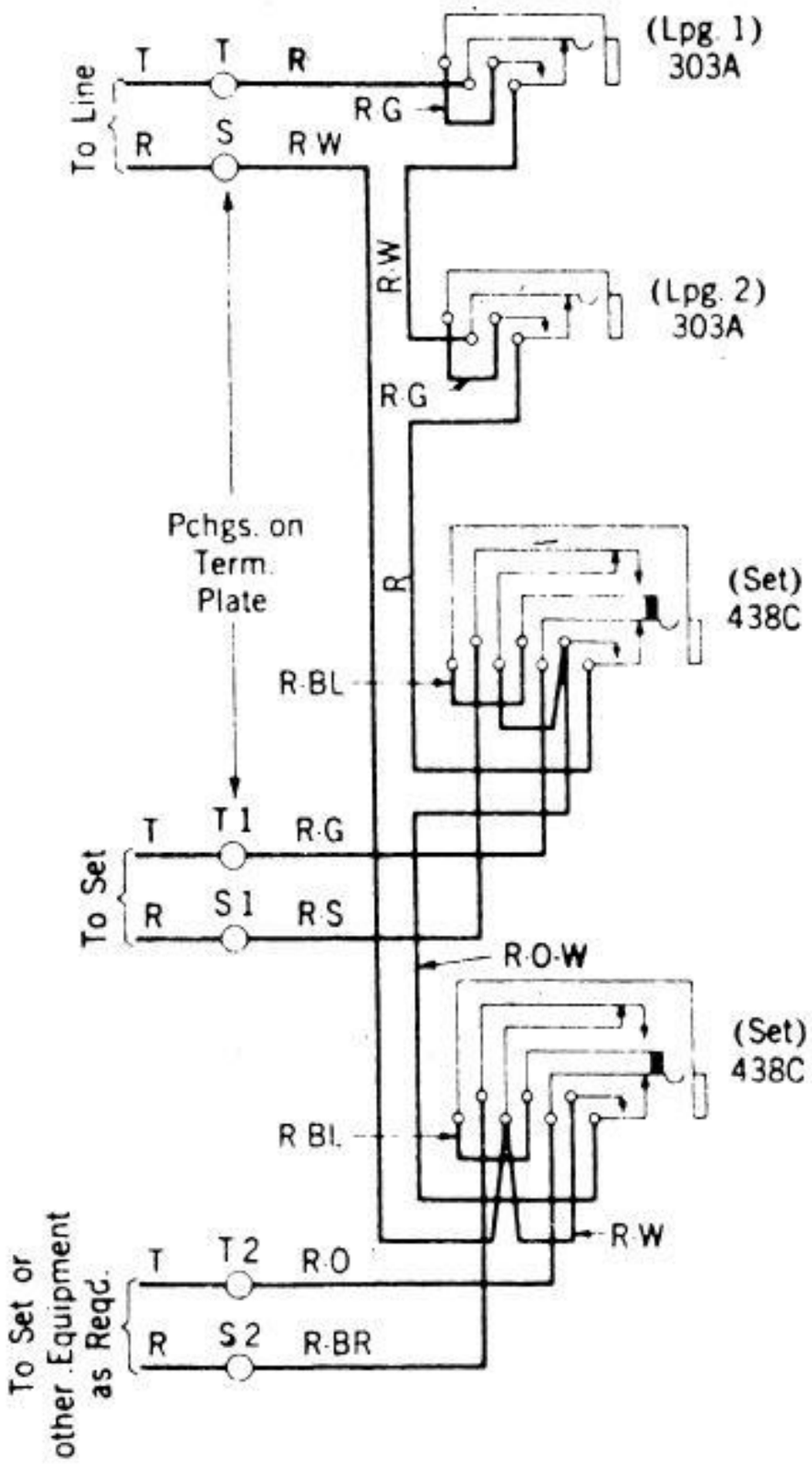


Fig. 9 - Jack Circuit Wiring, after Modification, to Provide Two "Set" Jacks.

63-C-1 TELEGRAPH LOOP SWITCHBOARD

1. GENERAL

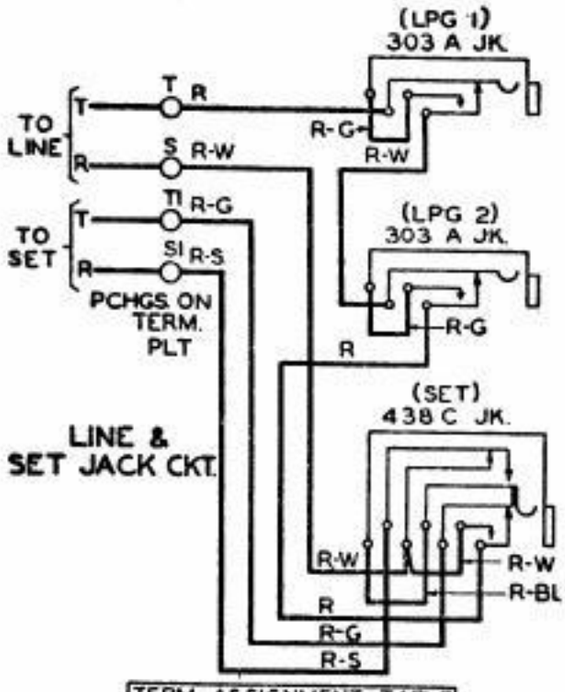
1.01 This section is reissued to include improvements in the 63-C-1 loop switchboard and to cover a series of mounting boards for mounting up to 6 loop switchboards.

1.02 The 63-C-1 telegraph loop switchboard is a small loop jack switchboard for installation in subscribers' offices to permit the interconnection of subscriber sets and loops for emergency or other reasons.

2. DESCRIPTION

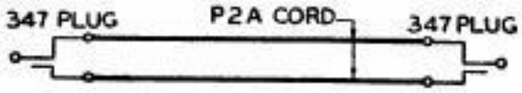
2.01 This loop switchboard consists of a fibre faced jack panel mounted in a mahogany walnut finished wooden cabinet approximately 7-5/16 inches high, 4-5/8 inches wide, and 4-3/4 inches deep. Each switchboard has a capacity of 4 loops. Each loop is provided with 3 jacks, 2 of which are looping jacks and 1 a set jack. In addition, each switchboard is provided with 4 miscellaneous jacks.

2.02 When no plugs are in the jacks, each loop is connected through the jacks to the set with which it is normally used. The 2 looping jacks make it possible to connect 2 additional sets in series by patching. The set jacks allow the set to be disconnected from the loop and patched to some other loop, if desired. The 4 miscellaneous jacks may be used for terminating spare equipment. The jacks are equipped with make before break contacts so that patches may be made without causing momentary opens in the circuit. The circuit arrangement of the jacks is shown on Fig. 1.

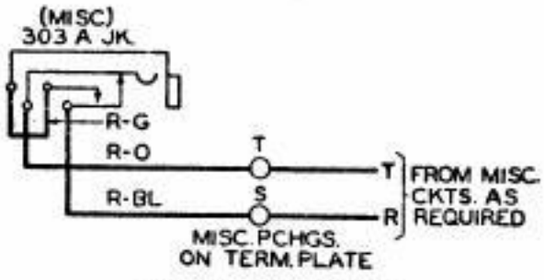


TERM. ASSIGNMENT TABLE					
CIRCUITS		TERMINALS			
LOOP	MISC.	T	S	T1	S1
1		1	2	3	4
2		6	7	8	9
3		11	12	13	14
4		16	17	18	19
	1	5	10		
	2	15	20		
	3	21	22		
	4	23	24		

NOTES:
1. WIRES NOT OTHERWISE SPECIFIED ARE 22 D.S.C.L.
2. PATCHING CORDS SHALL IN ALL CASES BE INSERTED INTO THE (SET) JK. BEFORE BEING INSERTED IN A (LOOPING) JK. TO AVOID OPENING THE LINE CKT. IN DISCONNECTING REMOVE CORD FROM (LOOPING) JK. BEFORE REMOVING IT FROM (SET) JK.



PATCHING CORD
FIG. 3



MISC. JACK CKT.
FIG. 2

WIRING OF CIRCUITS
CIRCUIT LABEL
63 C 1 TELEGRAPH LOOP SWITCHBOARD

Fig. 1

2.03 The switchboard is normally furnished with the terminal plate for connecting the outside leads at the bottom. Where it is desired to connect the outside leads at the top, the fibre faced jack panel may be reversed within the cabinet.

2.04 Horizontal designation strips are provided at the top and bottom of the jack panel, one just above the 4 miscellaneous jacks and one above the set jacks. The functions of the jacks are indicated by stampings at the left side of the panel. The general appearance of the switchboard is shown on Fig. 2, and a view with the jack panel and terminal plate cover removed is shown on Fig. 3.

2.05 When a greater capacity than 4 loops is required additional loop jack boards may be provided.

2.06 A series of mounting boards is available for installations requiring more than one loop switchboard. These mounting boards are available in 8 sizes for arranging

2, 3, 4, 5 or 6 switchboards side by side, 2 switchboards in 2 rows of 2 each, and 6 switchboards in 2 rows of 3 each. The mounting boards are constructed to provide a space between the board and the wall to make room for fanning out the external wiring to the group of switchboards.

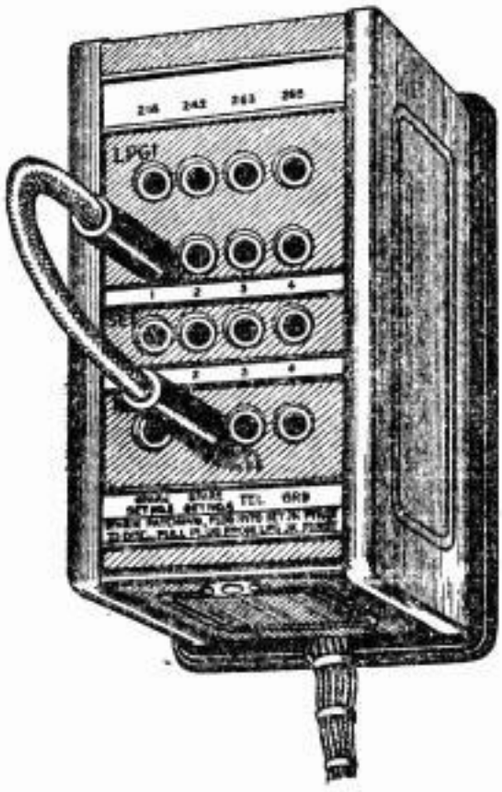


Fig. 2

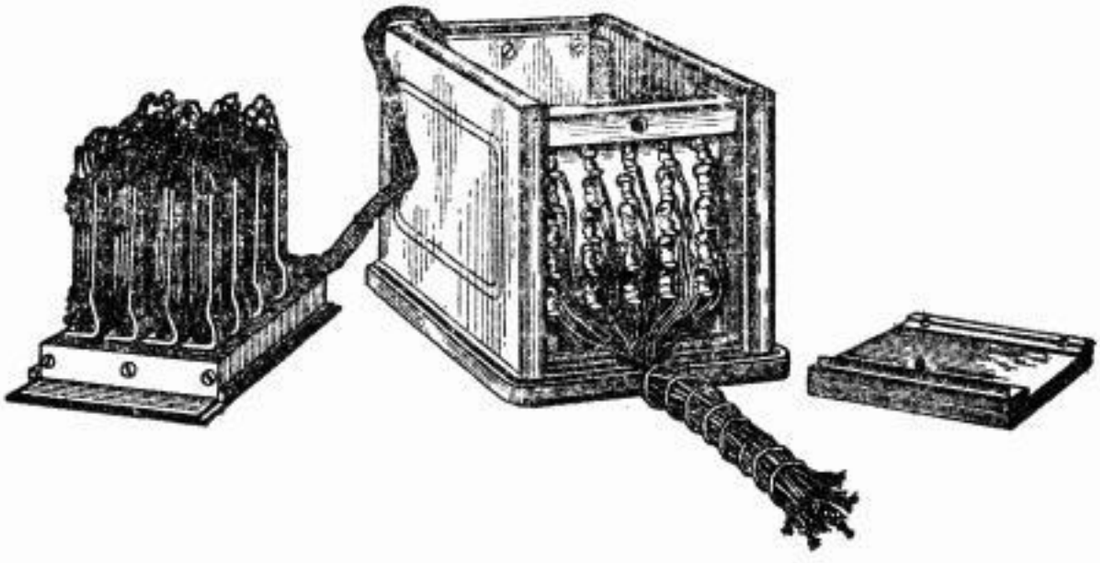
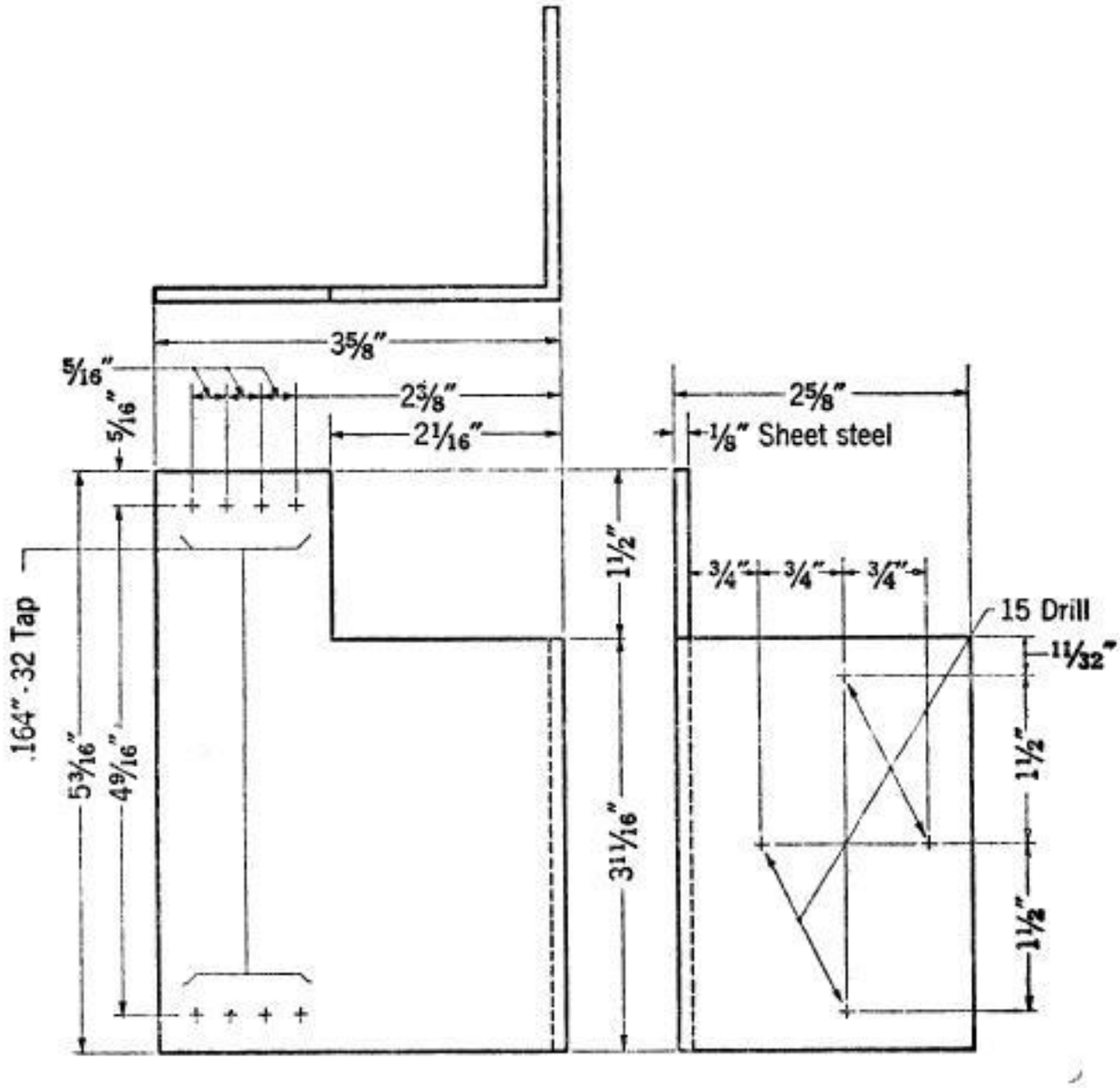


Fig. 3—63-C-1 Loop Switchboard Showing Accessibility of Equipment

3. INSTALLATION INFORMATION

3.01 The 63-C-1 telegraph loop switchboard is arranged for either wall or desk mounting and screw holes are provided in the base for this purpose. For desk mounting a metal bracket for fastening the switchboard to the side of the desk is available. This bracket is shown on Fig. 4 and a drawing of the switchboard mounted on the side of the desk is shown on Fig. 5. When replacing the jack panel care should be taken to arrange the local cable inside the box so that it will not be damaged by the jack equipment.



Mounting Bracket
Old Brass Finish per Spec. LRM 2000

Fig. 4

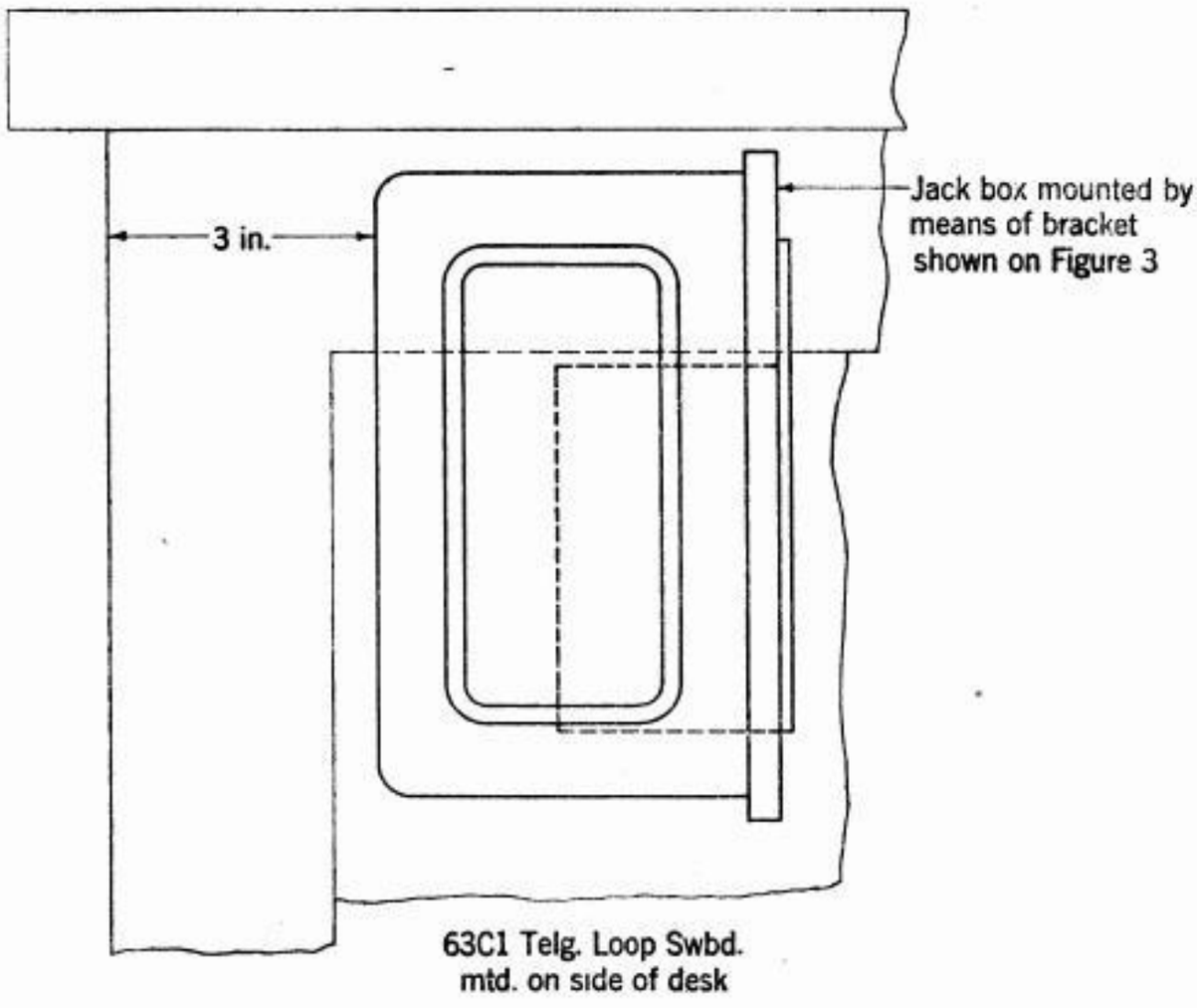


Fig. 5

3.02 The incoming cable may be standard inside wiring cable or may be made up of 22-gauge inside telephone wire. It should be connected to the terminals of the switchboard as shown on Fig. 6. In case the terminal plate is placed at the top, as described in 2.03, the local cable of the switchboard should be redressed as shown on Fig. 7.

3.03 P2A patching cords equipped with 347 plugs should be provided as required. When only one switchboard is used, patching cords 6 inches long are satisfactory. The length of the patching cords should be 6 inches greater for each additional switchboard provided.

3.04 If a mounting board is used, remove the bases from the individual switchboards and mount them on the board using the screw holes provided for that purpose. Remove the rail from the back of the mounting board on the end (right or left) where the wiring is to be brought in. Cut the rail to accommodate the wiring, and replace the remaining portion of it. Dress the wiring to a flat form and fan out as required to the various switchboards, bringing it through the hole pro-

vided in the mounting board for connection to the switch-board terminals. Mount the mounting board on the wall using the screw holes provided.

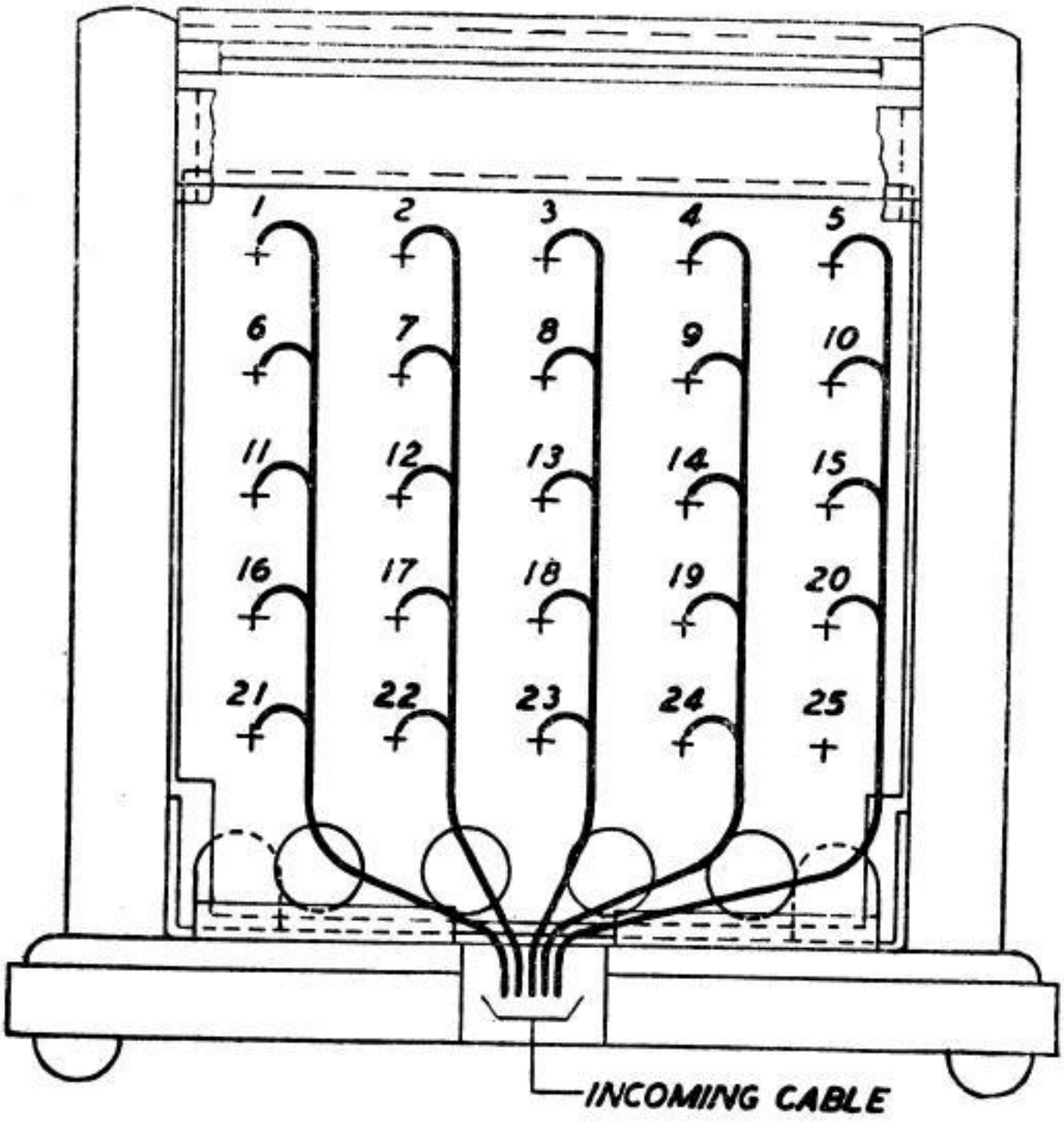
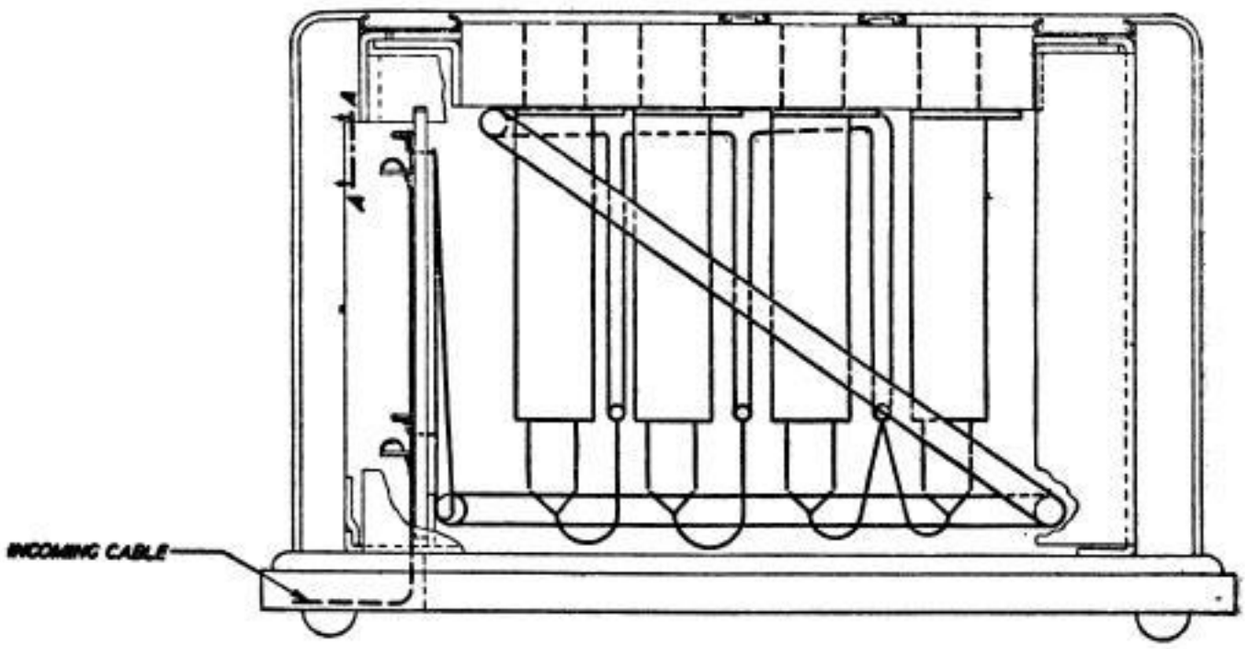


Fig. 6



METHOD OF REDRESSING LOCAL CABLE WHEN BOX IS MOUNTED WITH TERMINAL PLATE UPWARD

SIDE REMOVED

SIDE VIEW

Fig. 7