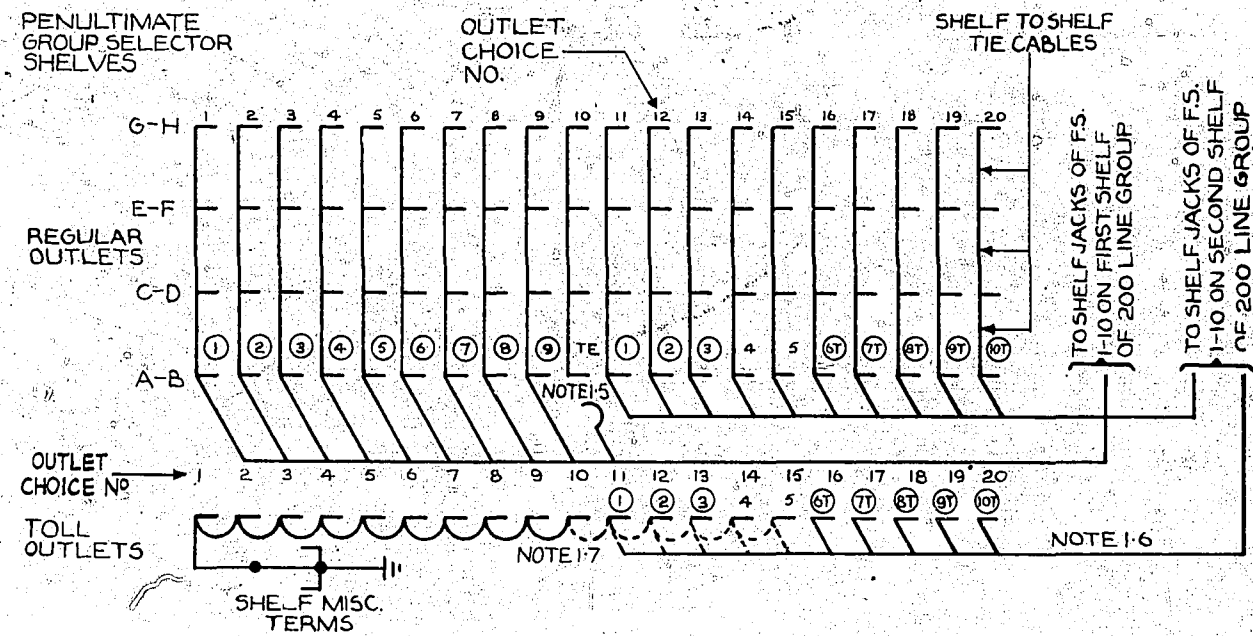


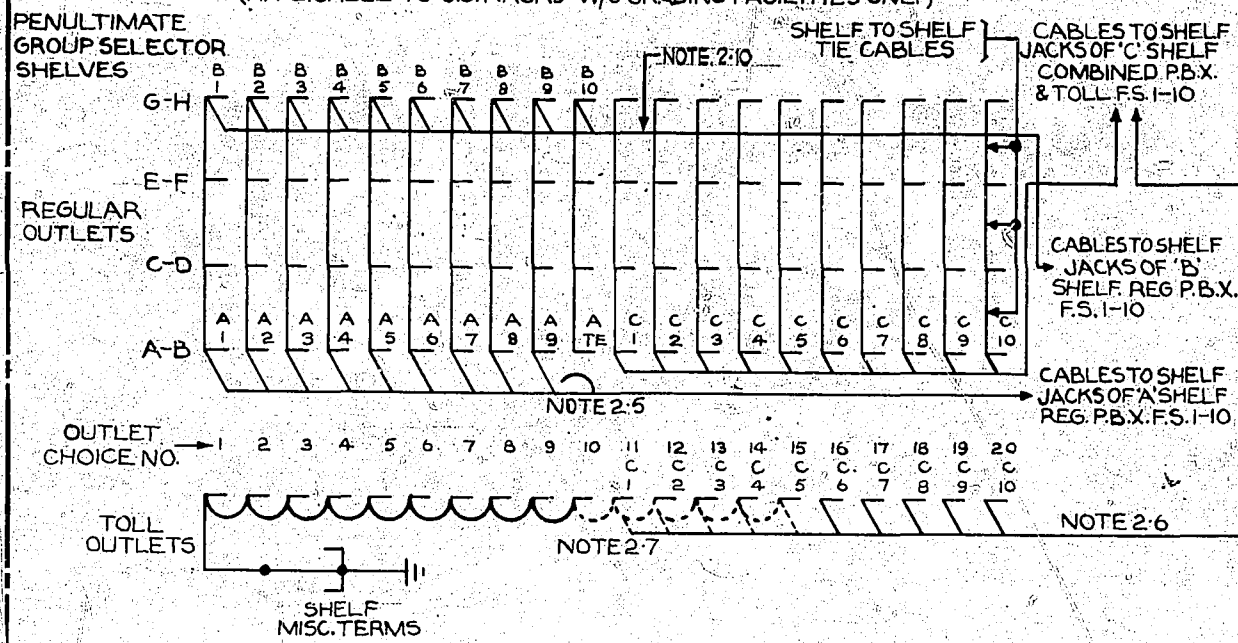
**FIG.1 DIRECT CABLING TO 20 BANK (ULT.) FINAL SELECTOR GROUPS**  
(APPLICABLE TO G.S. RACKS W/ & W/O GRADING FACILITIES)



**NOTES.**

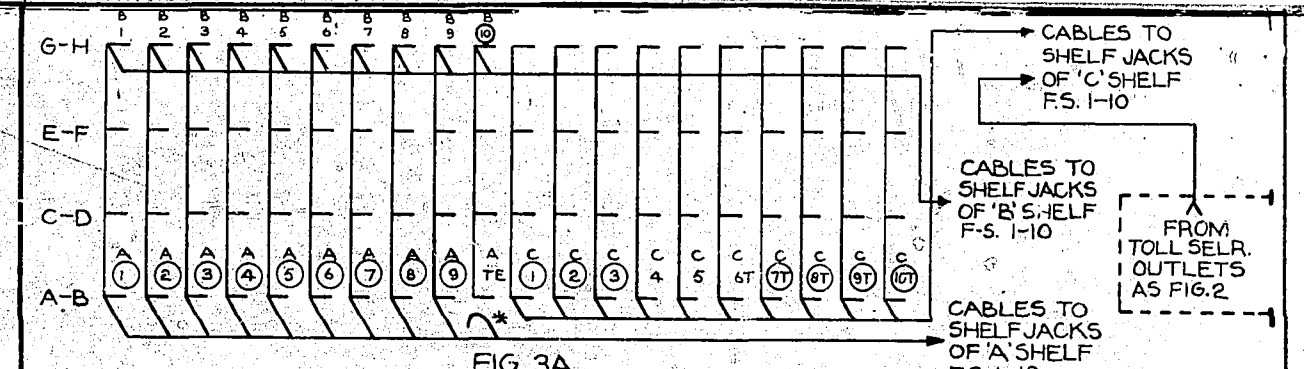
- 1.1. Fig.1 shows the "fixed" direct cabling arrangements between penultimate group selrs. and final selr. groups comprising 20 banks ultimate.
- 1.2. This cabling scheme provides for regular type final selrs. on shelf jacks 1 to 9 on the first shelf and for combined type toll final selrs. on shelf jacks 1 to 10 on the second shelf.
- 1.3. Outgoing cables are shown for explanatory purposes as outgoing from shelves A-B but these cables shall be connected to the shelf terminal strips specified in the cabling specifications for the particular exchange.
- 1.4. (1), (2), (3), (6), (7), etc, indicate the number of the final selr. shelf jack to which the particular group selr. outlet is wired. The circle indicates that the particular final selr. is equipped and the suffix T indicates that the final selr. equipped is of the combined type.
- 1.5. TE indicates that the test final selr. shall always be equipped in the tenth shelf jack position on the first shelf of the pair. Accordingly, the cable wires outgoing from that outlet should be laced on the forms at both ends of the cable and the 'P' terminal of the outlet earthed via the shelf miscellaneous terminal strip.
- 1.6. Outlets from toll grp. selrs. shall be wired to the full capacity of the cable supplied and shall be in straight multiple with the last choice outlets of the regular group selrs. i.e., combined type final selr. shelf jack No. 10 should appear on regular grp. selr. outlet No. 20 and also on toll grp. selr. outlet No. 20; similarly combined type final selr. shelf jack No. 9 should appear on outlets Nos. 19 & 19, respectively, etc.
- 1.7. The P terminals of toll group selr. outlets not cabled shall be connected to earth at the shelf miscellaneous terminal strip.
- 1.8. The P terminals of outlets of levels 0 & 1, 2 and 3, 4 and 5, 6 and 7, 8 and 9 shall be strapped on the bank mult. terminal strips terminating O/G cables at the rear of the regular penultimate grp. selr. shelves and at the rear of the toll penultimate grp. selr. shelves as shown on the GBX diagrams. These strapping tie cables shall be supplied on contract.
- 1.9. The final selr. shelf jacks are to be strapped as indicated in the Notes on the relevant GBU diagram according to whether the final selr. is of the combined type or of the regular type or not equipped at all.

**FIG.2 DIRECT CABLING TO 30 BANK (ULT.) FINAL SELECTOR GROUPS**  
(APPLICABLE TO G.S. RACKS W/O GRADING FACILITIES ONLY)



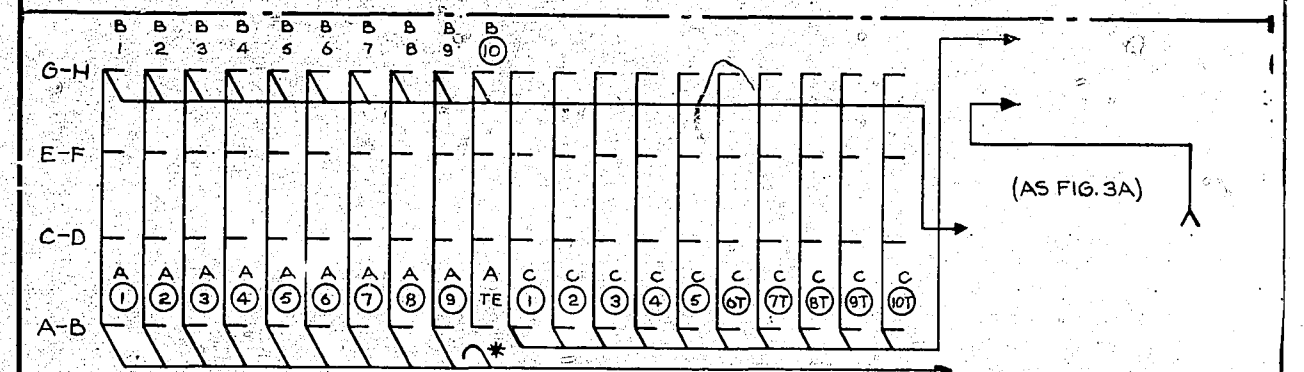
**NOTES.**

- 2.1. Fig.2 shows the "fixed" direct cabling arrangements between penultimate grp. selrs. and final selr. groups comprising 30 banks ultimate.
- 2.2. This cabling scheme provides for regular type final selrs. on shelf jacks 1 to 9 and 1 to 10 respectively, on shelves A and B, and for combined type toll final selrs. on shelf jacks 1 to 10 on shelf C.
- 2.3. Outgoing cables are shown for explanatory purposes as outgoing from shelves A-B and G-H but these cables shall be connected to the shelf terminal strips specified in the cabling specification particular to the exchange.
- 2.4. The figures A1, A2, A3 etc., indicate the number of the final selr. shelf jack to which the particular outlet of the group selr. multiple is wired.
- 2.5. TE indicates that the test final selr. should always be equipped in the tenth shelf jack position on the A shelf. Accordingly, the cable wires outgoing from that outlet should be laced on the forms at both ends of the cable.
- 2.6. Outlets from the toll group selrs. shall be wired to the full capacity of the cable supplied and shall be in straight multiple with the last choice outlets of the regular group selrs. i.e., combined type final selr. shelf jack No. 20 should appear on regular grp. selr. outlet No. 20 and also on toll grp. selr. outlet No. 20; similarly combined type final selr. shelf jack No. 9 should appear on outlets Nos. 19 and 19, respectively, etc.
- 2.7. The P terminals of toll group selr. outlets not wired shall be connected to earth via the shelf miscellaneous terminal strip.
- 2.8. The P terminals of outlets of levels 0 and 1, 2 and 3, 4 and 5, 6 and 7, 8 and 9 shall be strapped on the bank mult. terminal strips terminating O/G cables at the rear of the regular penultimate grp. selr. shelves and at the rear of the toll penultimate group selr. shelves as shown on the GBX diagrams. The P terminals of pairs of P.B.X. levels shall also be strapped similarly on the regular selr. shelves terminating O/G cables to the B shelf final selrs. These strapping tie cables shall be supplied on contract.
- 2.9. Figs. 3A, 3B and 3C show three successive stages in the growth of a typical grp. including in fig. 3C the disconnection of group selr. inter-shelf tie cables when more than 20 final selrs. are equipped. The relevant GBU diagrams show in the Notes how the final selr. shelf jack points are strapped except that (ref. GBU10790/1/2, notes 1 and 3B or GBU11790 notes 1 and 3) for shelf B selrs. 1 to 9 only, the jack point straps U9 to U7 or U9 to U11 are omitted in all cases and jack points U9 and U11 shall be opened.
- 2.10. WHEN THERE ARE ONLY 6 SHELVES IN THE PENULTIMATE SELECTOR GROUP THE OUTGOING CABLES TO THE 'B' SHELF FINAL SELECTORS OF A 30-BANK FINAL SELECTOR GROUP SHALL BE TERMINATED ON THE BANK MULTIPLE TERMINAL STRIPS FOR SHELVES E-F INSTEAD OF SHELVES G-H. IN ADDITION AS INDICATED FOR A TYPICAL GROUP AS IN FIG. 4., THE SHELF TIE CABLE WIRES SHALL BE CUT OR RETAINED AS NECESSARY TO PROVIDE THE MOST SUITABLE GRADING ARRANGEMENT WITH ACCESS FROM 3 GROUPS.
- 2.11. For cabling of outlets when more than one rack of penultimate group selectors has access to a particular final selector group see note 5-B



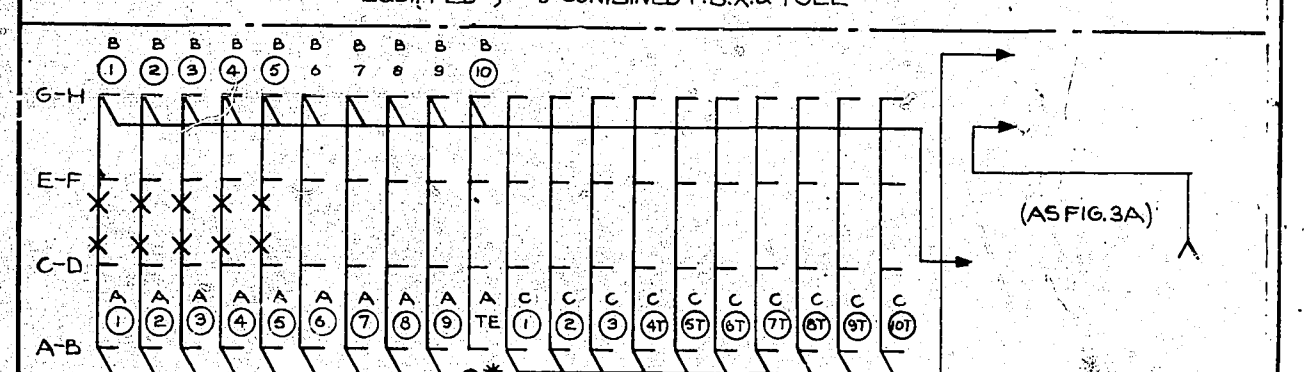
**FIG. 3A**  
SAMPLE FULL AVAILABILITY GROUP

FIN. SELRS EQUIPPED } 13 REGULAR P.B.X.  
4 COMBINED P.B.X. & TOLL



**FIG. 3B**  
SAMPLE FULL AVAILABILITY GROUP

FIN. SELRS EQUIPPED } 15 REGULAR P.B.X.  
5 COMBINED P.B.X. & TOLL



**FIG. 3C**  
SAMPLE GRADED GROUP

FIN. SELRS EQUIPPED } 18 REGULAR P.B.X.  
7 COMBINED P.B.X. & TOLL

**NOTES.**

- 3.1. Encircled numbers in figures 3A, 3B and 3C indicate that final selrs. are equipped in those shelf jack positions. The suffix T indicates that the final selr. is of the combined type. When full availability conditions are exceeded, selrs. are added to B shelf jacks 1 to 9 and the shelf-to-shelf tie cables marked \* are disconnected. Also U point straps are re-arranged and shelf jacks 9 and 11 are re-adjusted - ref note 2.9
- 3.2. The cable wires marked \* corresponding to the Test Final Selr. are left dead in the forms at both ends.
- 3.3. For detailed explanation of direct cabling ref. to BS.104.

CABLING OF			
PENULTIMATE SELECTOR			
OUTLETS TO 20 & 30 BANK FINAL			
SELECTOR GROUPS.			
NOTES AMENDED NZPO NOTE 'A' ADDED (33923)	2A	19-9-59	J.R.
NOTE 2.10. & SHEET 2 ADDED.	2		
AMENDMENT PARTICULARS	ISSUE	DATE	APPP
			SIZE M 50V H
NZPO	DRAWN	CHECKED	WIRING CIRCUIT
			GBW 14850
			SHEET 1-2

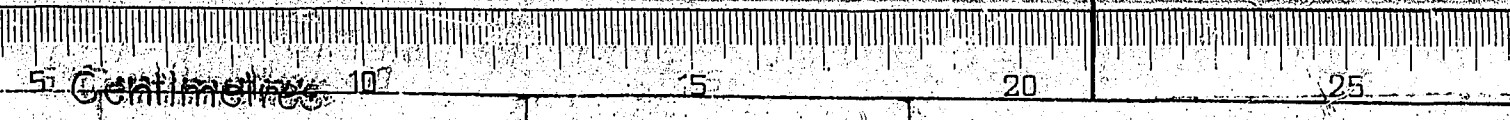


FIG. 4. DIRECT CABLING (TYPICAL) FROM 60 BANK PENULTIMATE GROUP TO 30 BANK F.S. GROUP

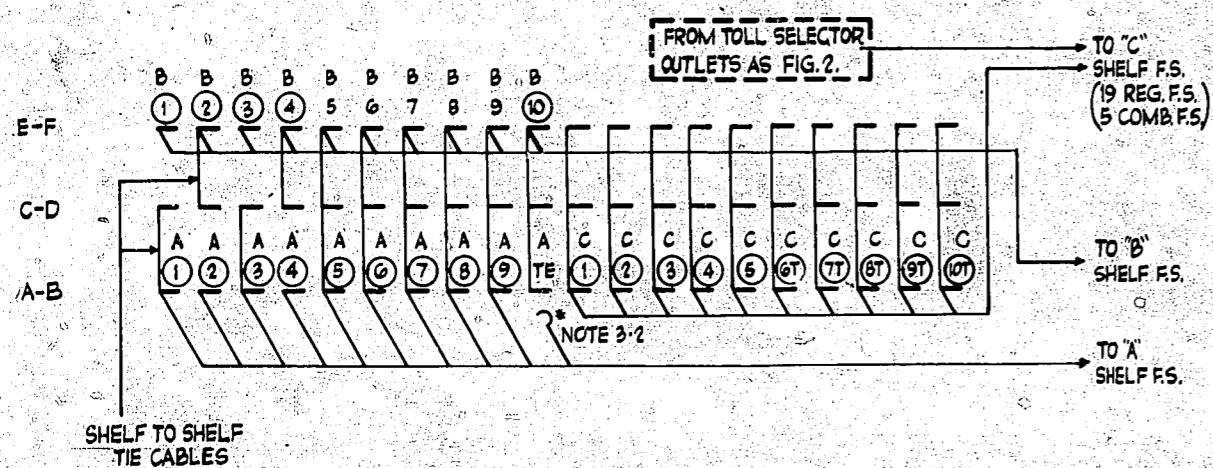
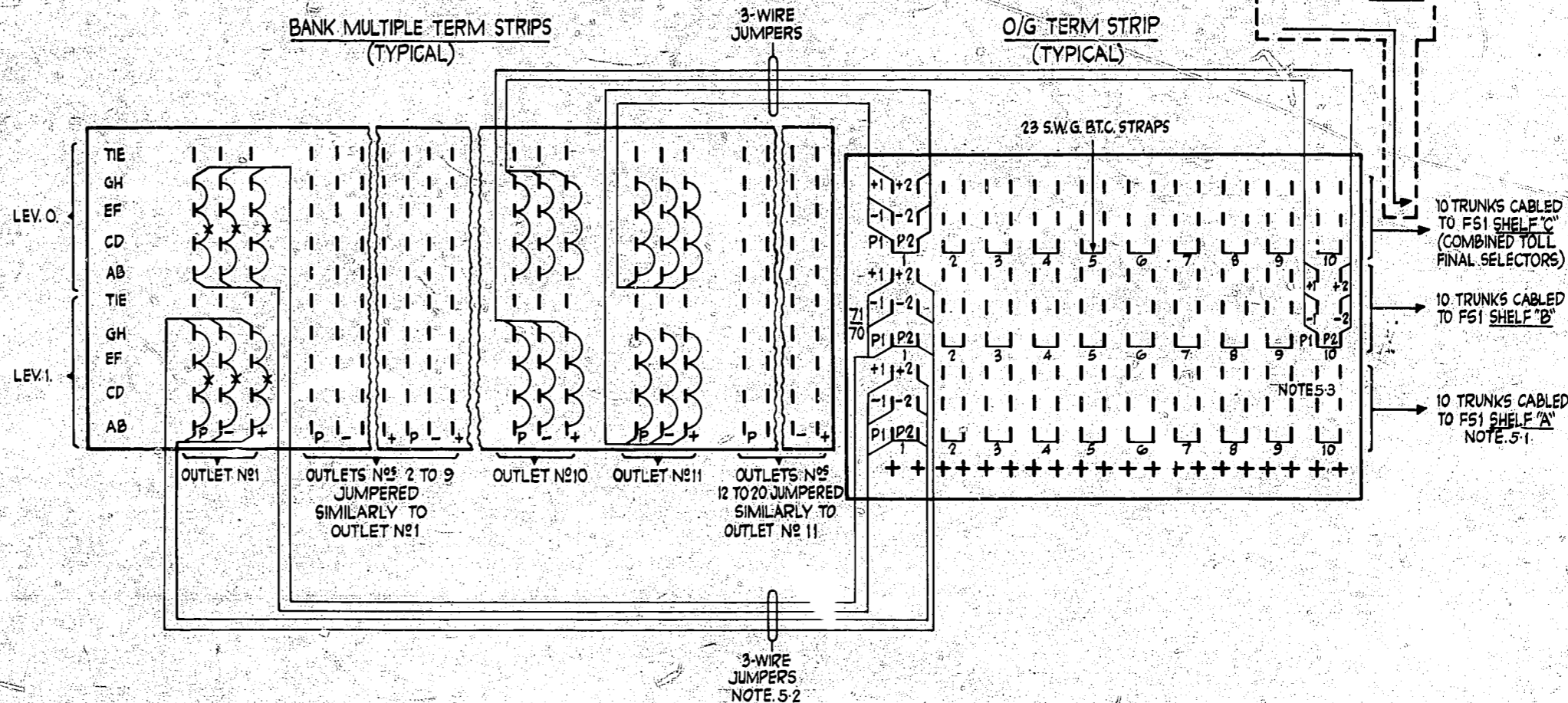


FIG. 5. CABLING TO 30-BANK (ULT) FINAL SELECTOR GROUPS (APPLICABLE TO G.S. RACKS WITH GRADING FACILITIES)



- NOTES.**
- 5.1. For final selector shelf jack terminations and U-point strappings etc., (including those cabled from the toll selector outlets) reference must be made to the GBW & GBU diagrams for the particular types of final selectors equipped and also to the relevant notes on diagram GBW14850.
  - 5.2. All bank multiple outlets to 30-bank final selector groups shall be jumpered between bank multiple term strips and outgoing term strips at the outset.
  - 5.3. Terminals for trunk No. 10 (to shelf 'A') are not jumpered between outgoing term strip and bank mult. term. strip, and the 10th set of cable wires incoming to the outgoing term. strip are left dead in the cable form at both ends of the cable.
  - 5.4. Trunks from outgoing term. strip to final selectors are 5 wire.
  - 5.5. Remove straps X as required when additional final selectors are provided on the 'B' shelf of a 30 bank final selector group to increase traffic carrying capacity. Also final selector U-point straps are rearranged and shelf jacks 9 & 11 re-adjusted ref note 2.9
  - 5.6. Toll selector outlets shall be cabled directly (i.e., not using outgoing term. strips) from the bank mult. term. strips to the appropriate final selector shelf jacks whether the toll penultimate selectors are equipped on the regular penultimate group selector racks or are on separate toll group selector racks.
  - 5.7. When there are only 6 shelves in the penultimate selector group, the outgoing jumpers to the 'B' shelf final selectors of a 30 bank final selector group shall terminate on the bank mult. terms. of the outlets for shelves 'E-F', in addition the strapping of the early choice outlets shall be cut or retained as necessary to provide the most suitable grading arrangement with access from 3 groups (reference fig. 4. GBW14850).

- 5.8. When more than one penultimate rack has access to a particular 30-bank final selector group the outlets of the additional shelves shall be tie-cabled to the outlets of the first rack via the bank multiple term. strips so that traffic is evenly apportioned to the final selector shelves.

**NZPO NOTES**

A Note 2.11 added, note 3.1 extended and note 5.5 re-arranged

				CABLING OF PENULTIMATE SELECTOR OUTLETS TO 20 & 30 BANK FINAL SELECTOR GROUPS			
NOTES AMENDED NZP NOTE A ADDED (33923		2A	0-9-59	J.R.			
AMENDMENT PARTICULARS		ISSUE	DATE	APP	SIZE	M	50" H
NZPO	DRAWN	CHECKED	WIRING	CIRCUIT	<b>GBW 14850</b>		
							SHEET 2-2