

APPENDIX G

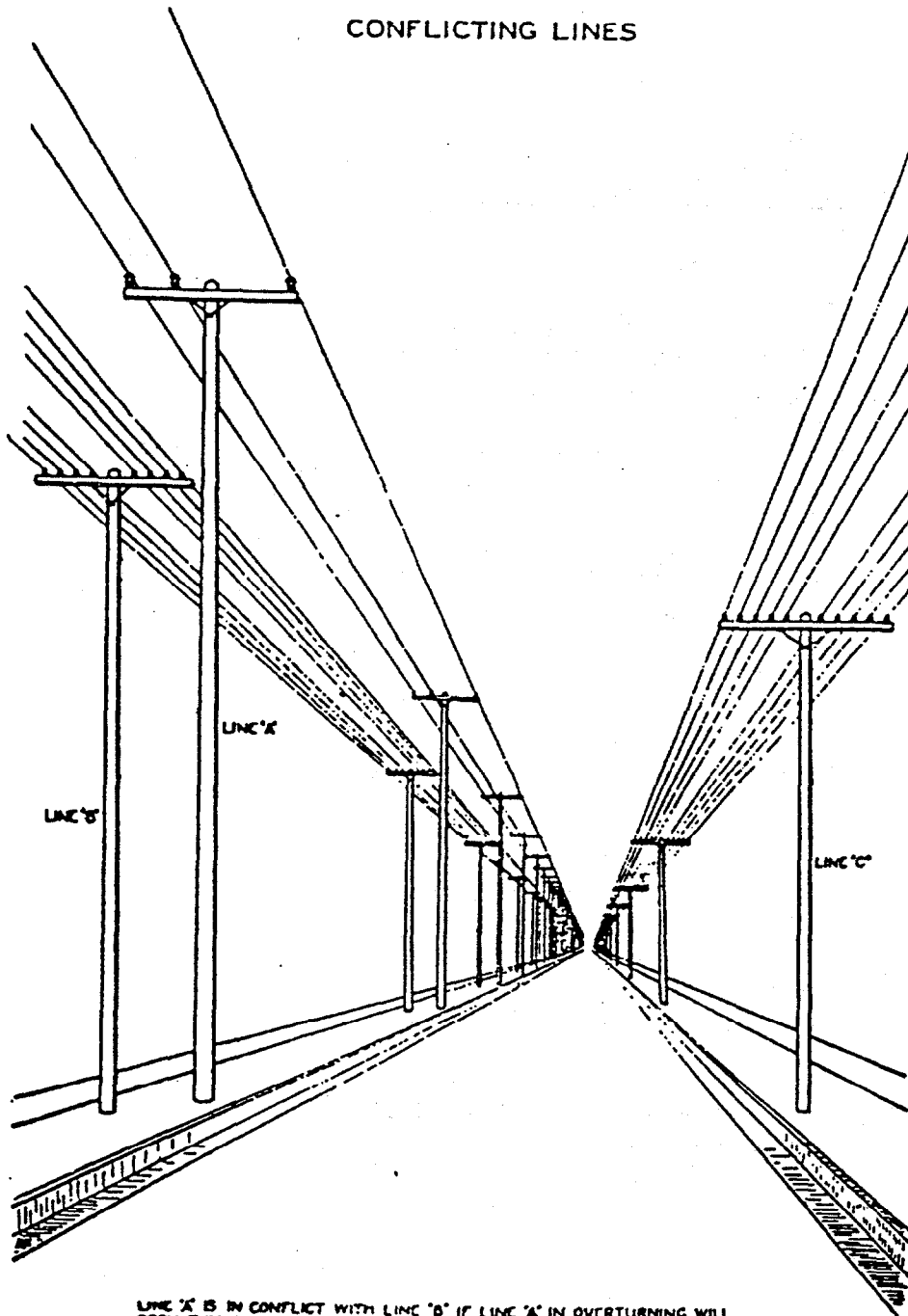
TYPICAL ILLUSTRATIVE DIAGRAMS OF RULES

These diagrams illustrate the requirements of certain rules and are to be used as a guide only for the application of such rules. Under no conditions shall these diagrams be given precedence over the rules as written.

<u>Figure No.</u>	<u>Subject</u>	<u>Page</u>
1	Conflicting Lines -----	338
2	Co-linear Lines (Overbuilds) -----	339
3	Co-linear Lines -----	339
4	Sag-Normal or Apparent -----	340
5	Sag-Apparent -----	340
6	Clearance of Wires above Ground, Etc. -----	341
7	Clearance of Wires at Point of Crossing -----	342
8	Vertical Separation of Wires on Different Crossarms -----	343
9	Vertical Separation-Racks and Cables -----	344
10	Conductor Separation-Line and Buck Arms -----	345
11	Conductor Separation-Combination Line and Buck Arms -----	346
12	Conductor Pin Spacing and Pole Clearance -----	347
13	Horizontal Dead Ends 0-7500 V -----	348
14	Horizontal Dead Ends More Than 7500 V -----	348
15	Climbing Space-Vertical Dead Ends -----	349
16	Climbing Space-Line Arms Only -----	349
17-18-19	Climbing Space-Line and Buck Arms 0-750 V -----	350
20-21-22	Climbing Space-Line and Buck Arms 750-20,000 V --	351
23-24-25	Climbing Space-Combination Arms 0-750 V Quadrant-	352
26-27-28	Climbing Space-Combination Arms 750-7500 V Quadrant -----	353
29-30-31	Climbing Space-Combination Arms 2 feet spacing --	354
32	Climbing Space-Low Voltage Racks -----	355
33	Low Voltage Rack Under Transformer -----	356
34	Climbing Space-Communication Line Arms -----	357
35-36-37	Climbing Space-Communication Line and Buck Arms -	358
38	Climbing Space-Communication Not on Crossarms ---	359
39	Climbing Space-Communication Service Drops -----	360
40	Supply Service Drops on Clearance Arms -----	361
41	Supply Service Drops on Pole Top Extensions -----	362
42	Supply Service Drop Clearance from Cables -----	363
43	Supply Service Drops From Guarded Racks -----	364
44	Exposed Communication Guys -----	365

<u>Figure No.</u>	<u>Subject</u>	<u>Page</u>
45	Guys in Proximity -----	366
46	Guys Sectionalizing-Supply Lines -----	367
47	Guy Sectionalizing-Communication Lines -----	368
48	Guy Sectionalizing-Joint Poles -----	369
49	Guy Sectionalizing-Anchor Guys -----	370
50	Guy Sectionalizing-Arm and Branch Guys -----	371
51	Guy Sectionalizing-Sidewalk and Truss Guys -----	372
52	Guys Exposed to Supply of More Than 20,000 Volts-	373
53-54	Location of Supply Cables -----	374
55	Traffic Signal Installations -----	375
56	Street Light Installation -----	376
57-58-59	Grounding of Transformer Windings -----	377
60	Rack Conductor Clearance from Pole -----	378
61	Riser Covering and Terminal Clearance -----	379
62	Trolley Spans of 100 Feet or Less -----	380
63	Trolley Spans Exceeding 100 Feet -----	380
64	Trolley Lines Under Bridges -----	380
65	Broken Trolley Suspension -----	381
66	Broken Trolley Fastening -----	381
67	Feeder Span Wire Insulation -----	381
68-69	Span Wire Insulation -----	382
70-71	Feeder Span Wire Insulation -----	382
72-73	Backbone Insulation -----	383
74 to 80	Trolley Bracket Insulation -----	384
81	Hardwood Ground Moulding -----	385
82	Pipe or Cable Covering -----	385
83	Clearance of Wires and Equipment -----	386
84	Pole Clearance-Communication Wires -----	387
85	Guying Terms -----	388
86	Quadrant or Side of Pole for Uncovered Runs or Risers -----	389
87	Partial Underground-Rule 21.10 -----	390
88	Conductor Clearance and Arrangement Partial Underground-Rule 54.4-D2 -----	391

CONFLICTING LINES

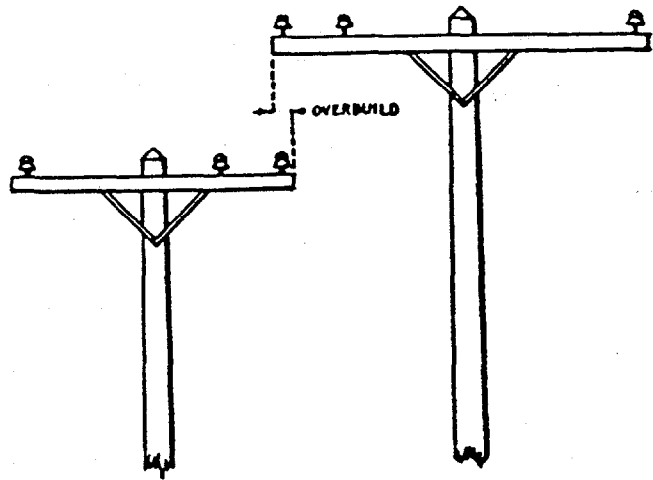


LINE 'A' IS IN CONFLICT WITH LINE 'B' IF LINE 'A' IN OVERTURNING WILL RESULT IN CONTACT WITH CONDUCTORS OF LINE 'B'. LINE 'A' IS NOT IN CONFLICT WITH LINE 'C' PROVIDED THAT LINE 'C' IS ON OPPOSITE SIDE OF HIGHWAY STREET OR ALLEY AND SEPARATED BY A DISTANCE EQUAL TO 60% OF THE HEIGHT OF THE TALLER POLE LINE, BUT IN NO CASE LESS THAN 20 FEET.

SEE DEFINITION 21.7-A

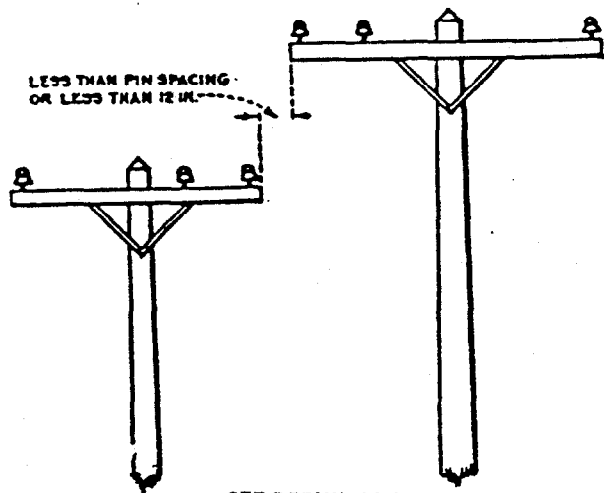
FIG. 1.

CO-LINEAR LINES



SEE DEFINITION  
21.7-B

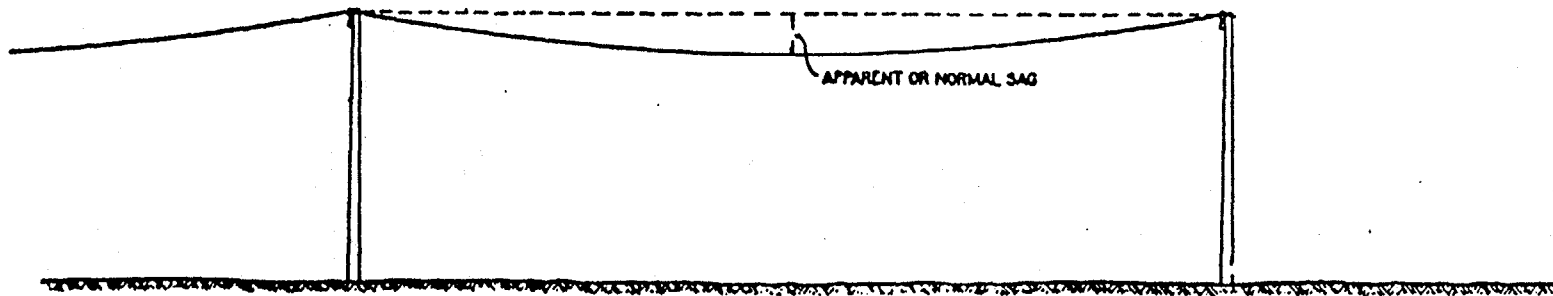
FIG. 2



SEE DEFINITION  
21.7-B

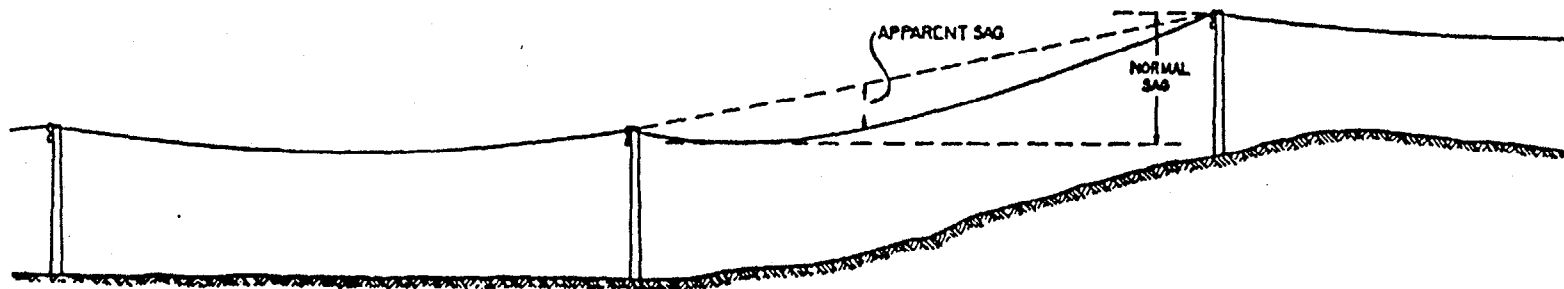
FIG. 3

SAG-NORMAL AND APPARENT



SEE DEFINITION 22.7-A

FIG. 4



SEE DEFINITION 22.7-B

FIG. 5

CLEARANCE OF WIRES ABOVE RAILROAD TRACKS, HIGHWAYS ETC.  
 RULE 37, TABLE 1, CASES 1 TO 5.

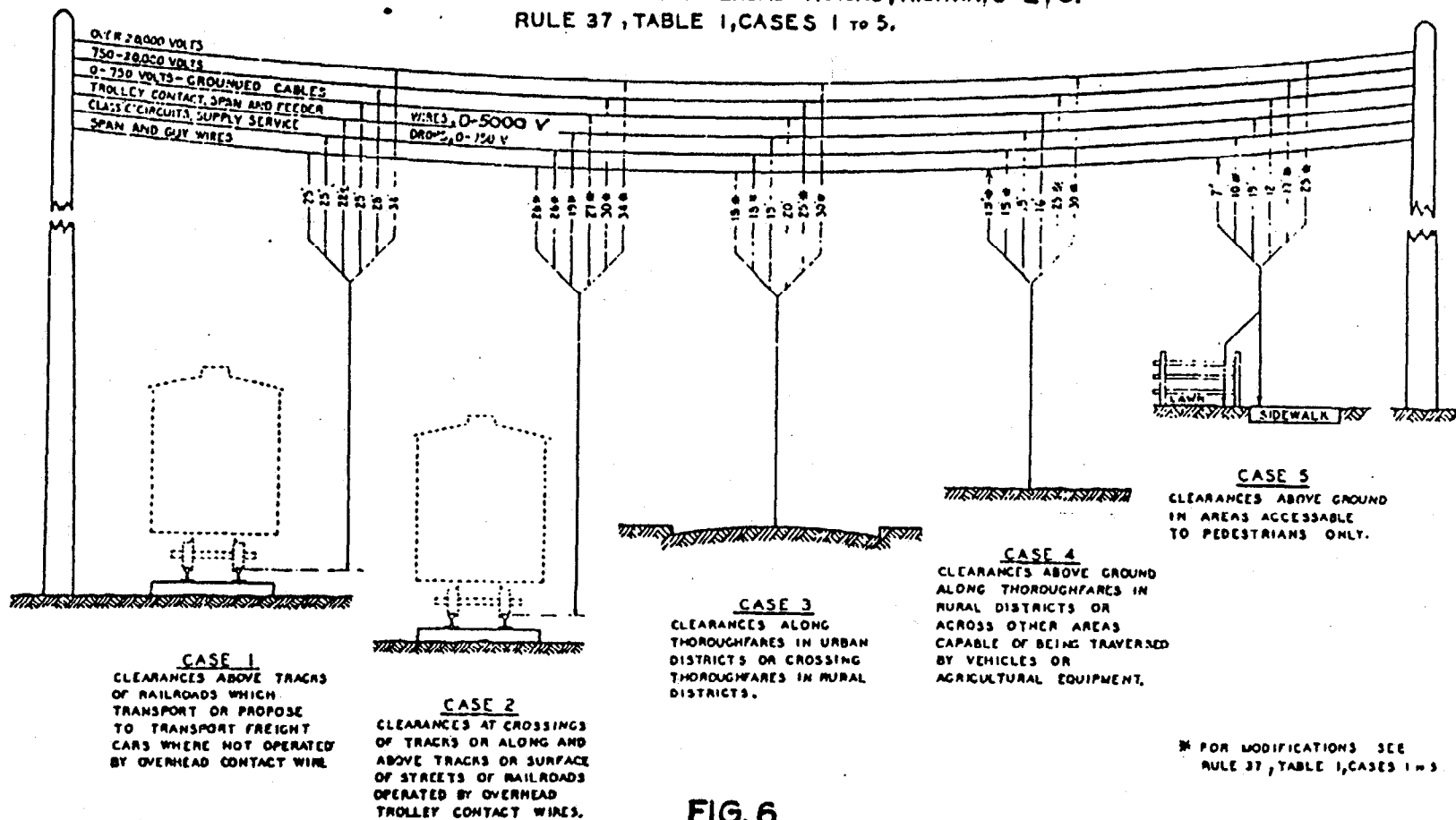


FIG. 6

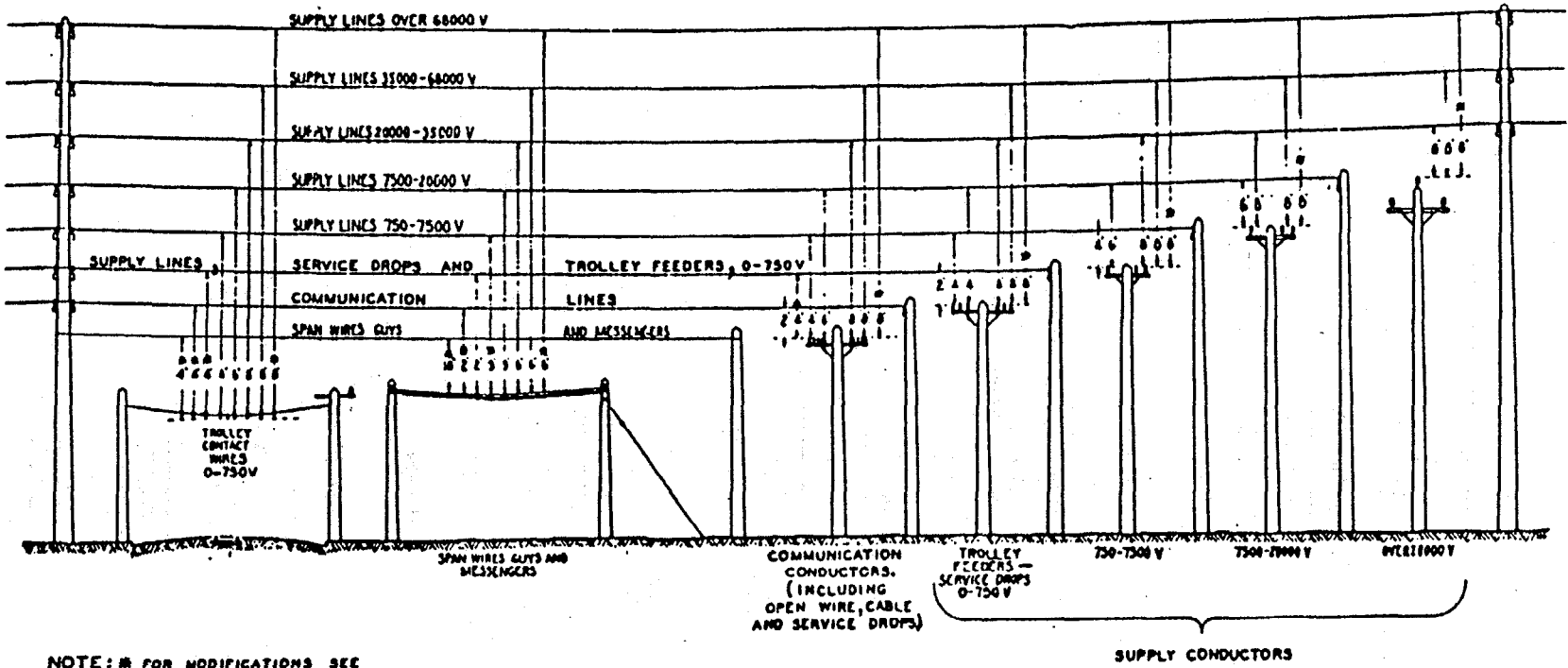
Illustrative Diagrams

App. G

CLEARANCE OF WIRES AT POINT OF CROSSING  
 RULE 38, TABLE 2, CASES 1 to 7.

App. G

Illustrative Diagrams



NOTE: # FOR MODIFICATIONS SEE  
 RULE 38, TABLE 2, CASES 1 to 7.

FIG. 7

- 342 -

VERTICAL SEPARATION OF WIRES ON  
DIFFERENT CROSSARMS OF THE SAME POLE.  
RULE 38, TABLE 2, CASES 8 TO 13.

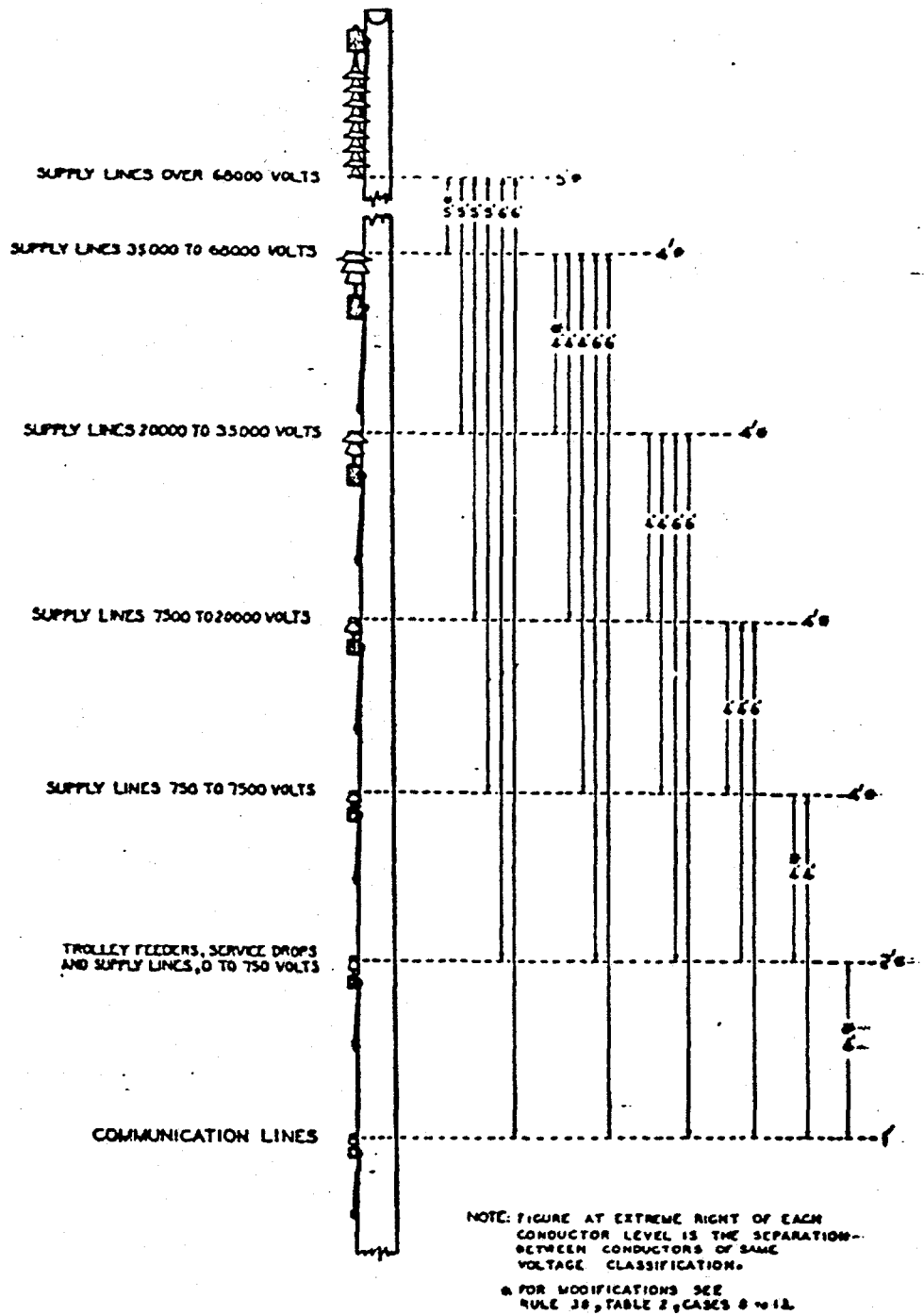


FIG. 8



MINIMUM VERTICAL SEPARATION  
BETWEEN CABLES, LOW VOLTAGE RACK CONDUCTORS AND OTHER CONDUCTORS  
ON JOINTLY USED POLES  
ILLUSTRATING RULE 92.1-A & 92.1-B

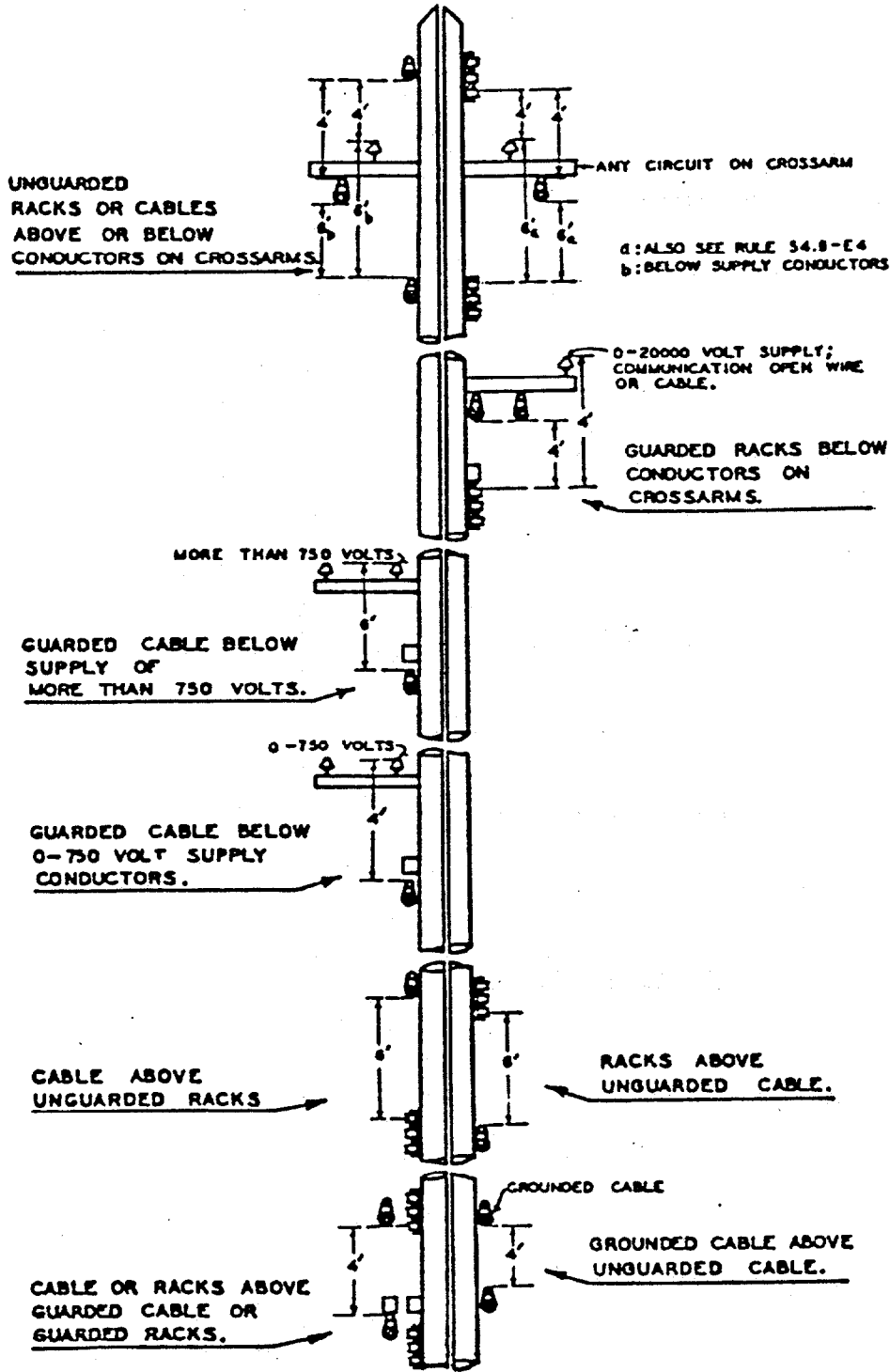


FIG. 9

MINIMUM VERTICAL CLEARANCES  
IN LINEARM AND BUCKARM CONSTRUCTION.  
RULE 38, TABLE 2, CASES 8 TO 14.

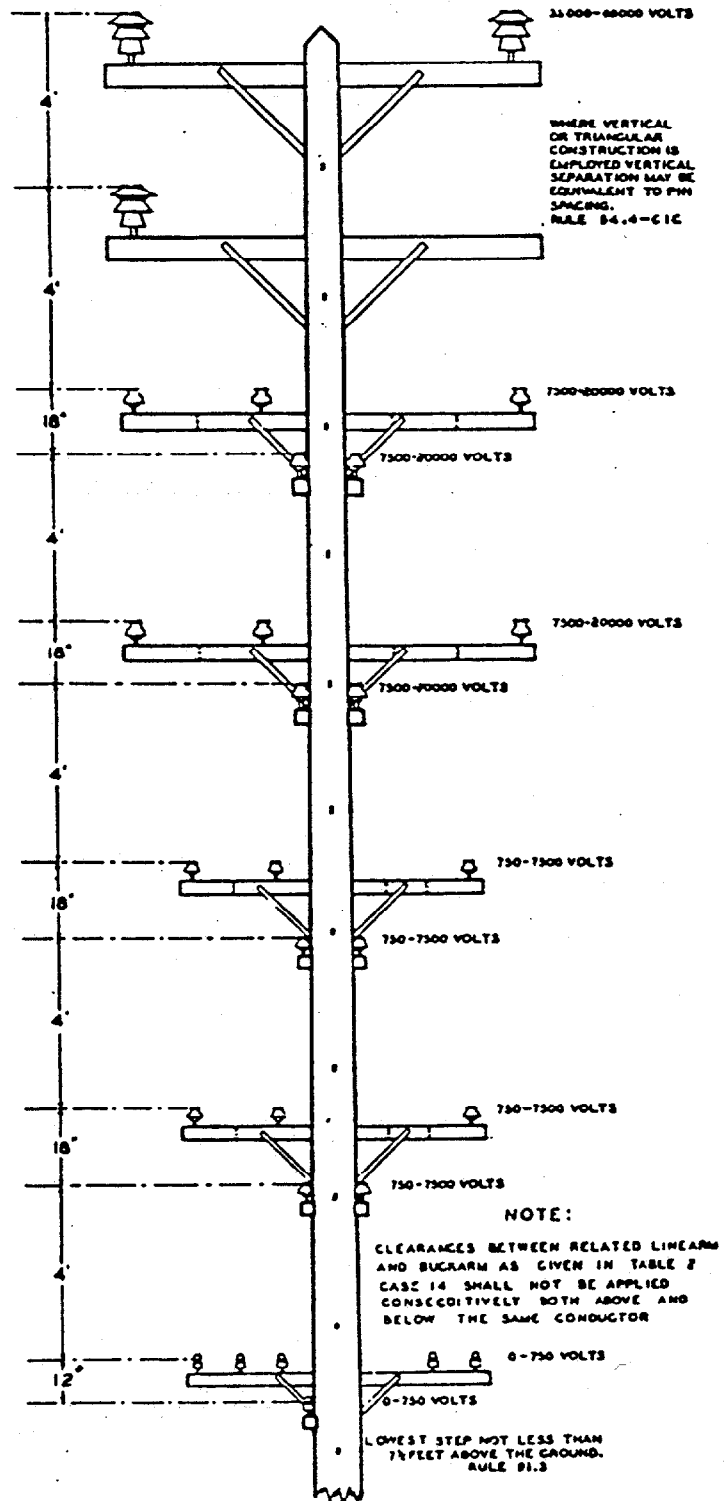


FIG 10

MINIMUM VERTICAL CLEARANCES  
 IN COMBINATION LINEARM AND  
 COMBINATION BUCKARM CONSTRUCTION  
 RULE 38, TABLE 2, CASES 8 TO 14.

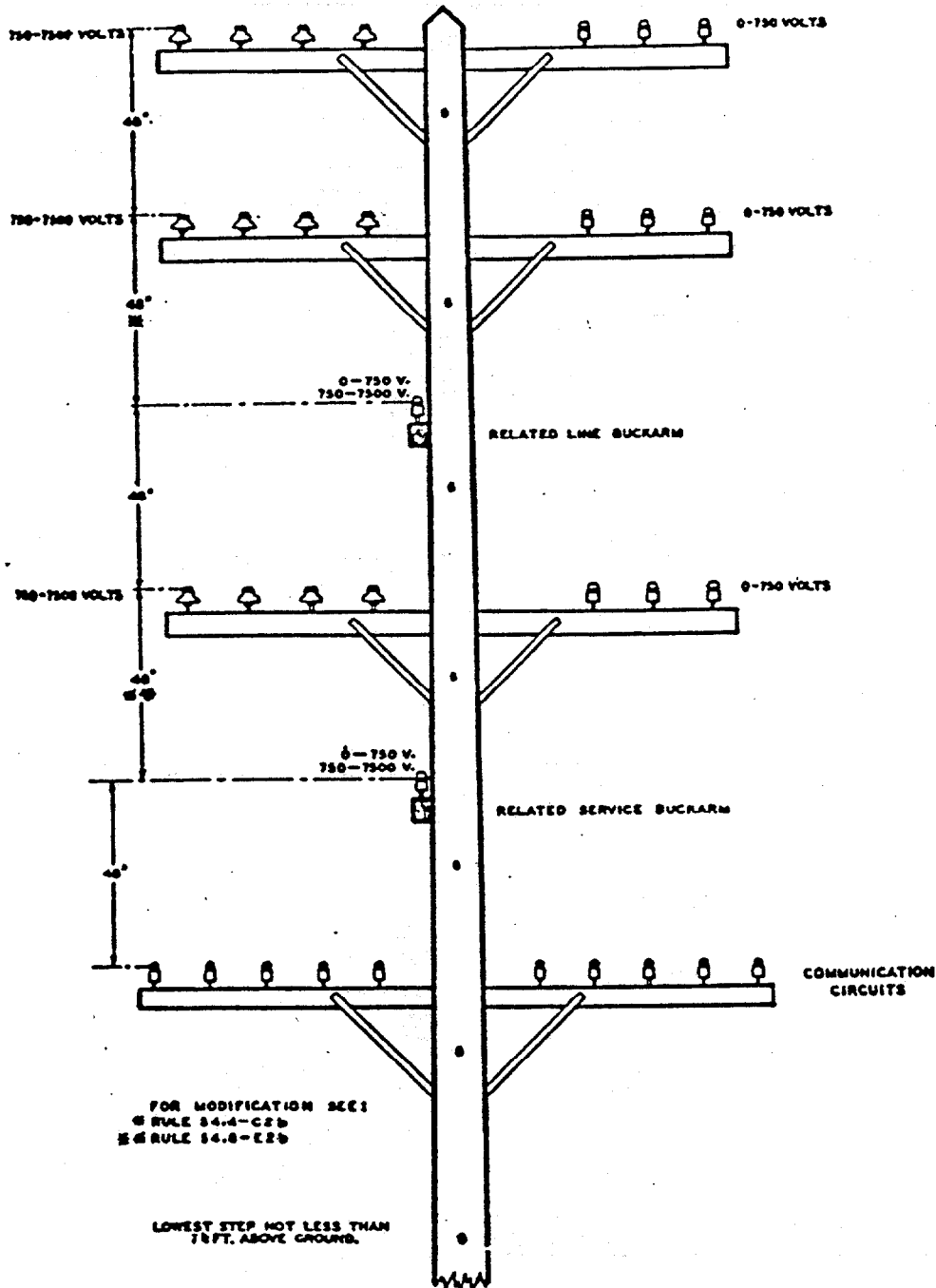


FIG. 11

MINIMUM  
HORIZONTAL CONDUCTOR SPACING  
TABLE 1, CASE B AND TABLE 2, CASE 15

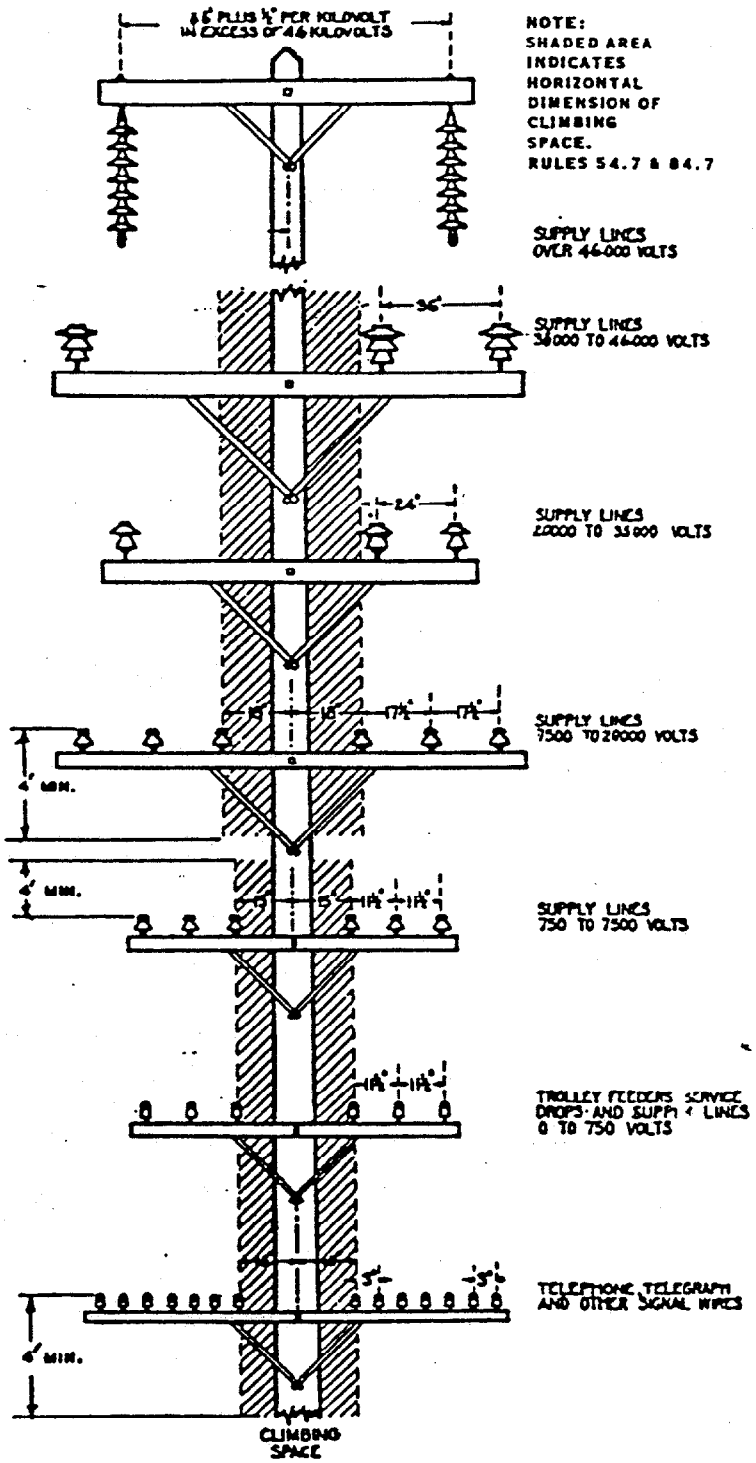


FIG. 12

*Illustrative Diagrams*

SUPPLY CONDUCTORS  
DEAD ENDED IN HORIZONTAL CONFIGURATION  
0-7500 VOLTS

RULE 54.4-D7a

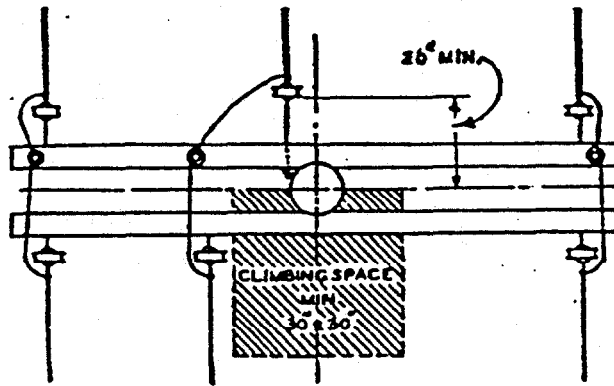
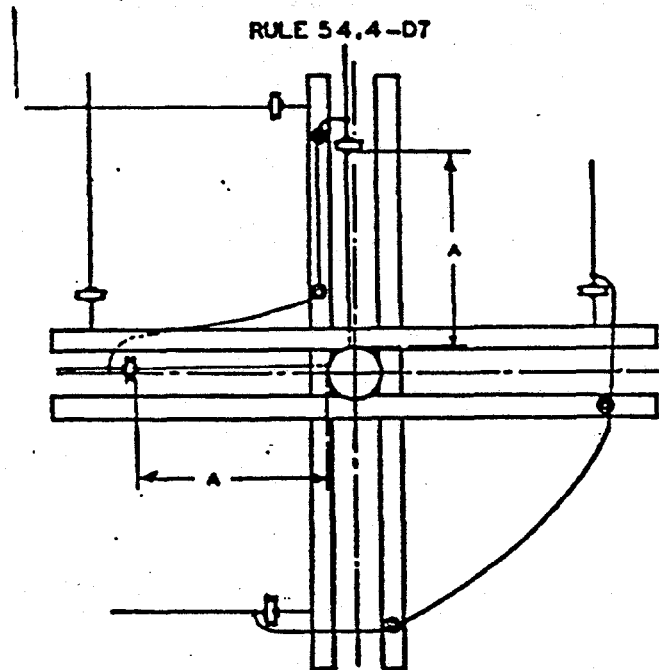


FIG. 13

SUPPLY CONDUCTORS  
DEAD ENDED IN HORIZONTAL CONFIGURATION

RULE 54.4-D7

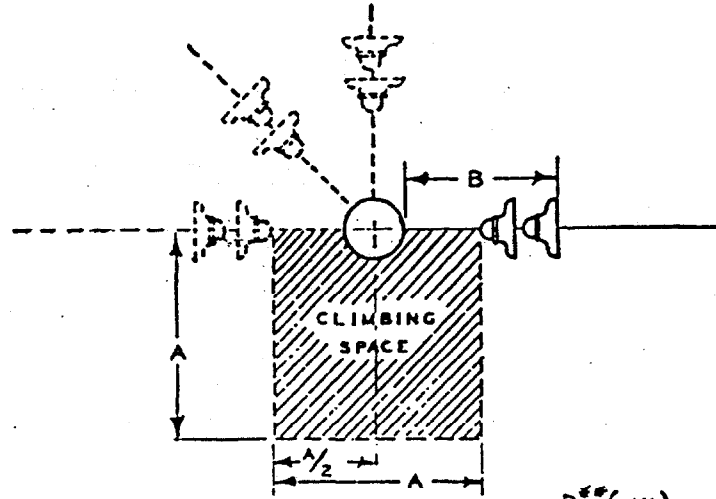


NOTE A = 30" FOR 0-7500 VOLTS  
= 36" FOR MORE THAN 7500 VOLTS

FIG. 14

CLIMBING SPACE FOR  
DEAD ENDING IN VERTICAL CONFIGURATION

RULE 54.7 -A1



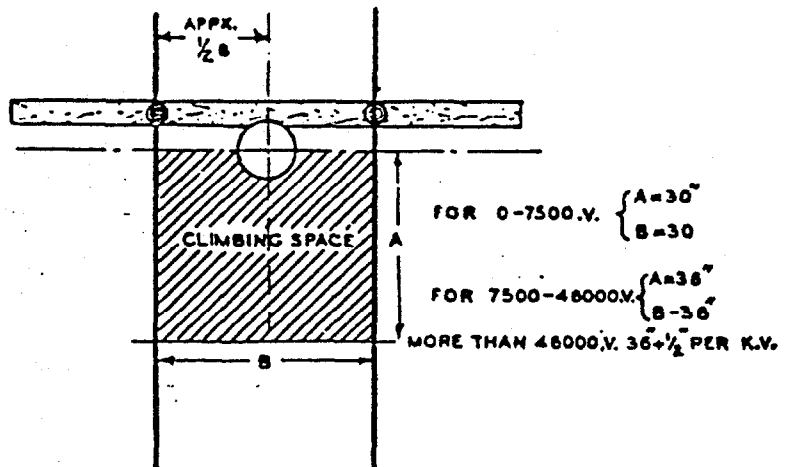
VOLTAGE OF CIRCUIT	A (MIN.)	B <sup>***</sup> (MIN.)	
		TOP CIRCUIT	BELOW TOP CIRCUIT
750-7500 VOLTS	30" *	15"	24"
7500-46000 VOLTS	36" *	18"	36"
MORE THAN 46000 VOLTS	36" PLUS 1/2" PER K.V. OVER 46 K.V. *	18"	36"

\* UNOBSTRUCTED BY DEADEND INSULATORS ETC. (RULE 54.7-A4)  
\*\* SEE RULE 54.4-D6b

FIG. 15

CLIMBING SPACE  
LINE ARMS ONLY

RULE 54.7 -A2



FOR 0-7500.V. { A=30"  
                          B=30"  
FOR 7500-46000.V. { A=36"  
                          B=36"  
MORE THAN 46000.V. 36" + 1/2" PER K.V.

FIG. 16

CLIMBING SPACE  
LINEARM AND RELATED BUCKARM  
0-750 VOLT CONDUCTORS  
RULE 54.7-A3a

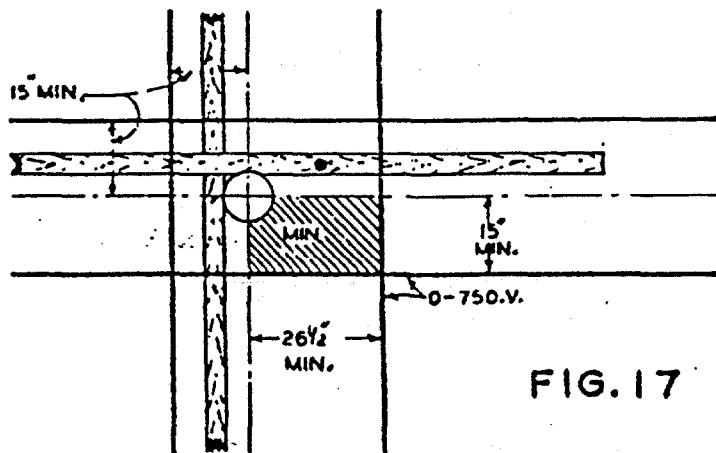


FIG. 17

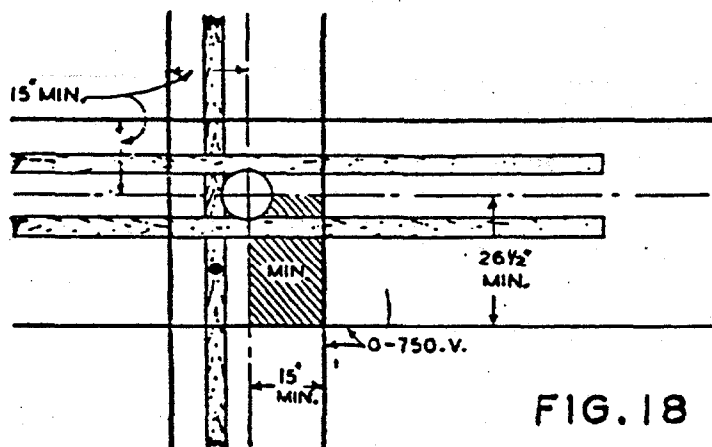


FIG. 18

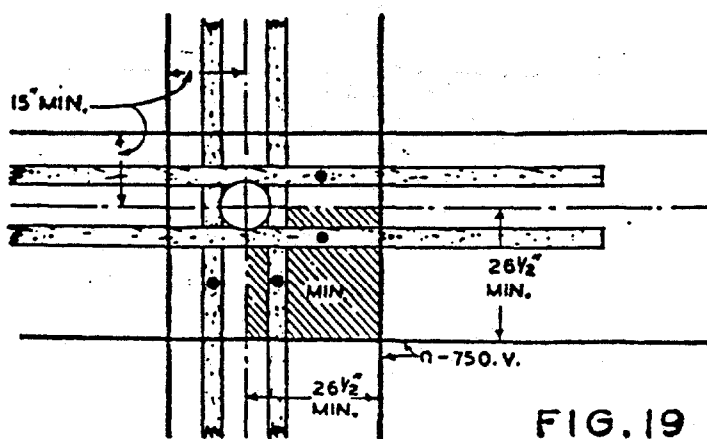
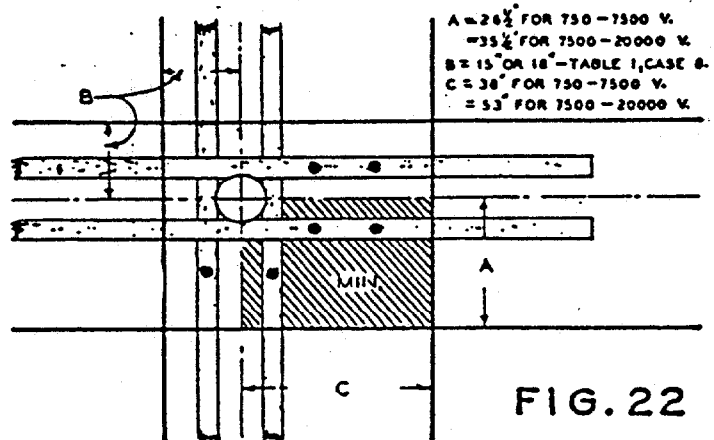
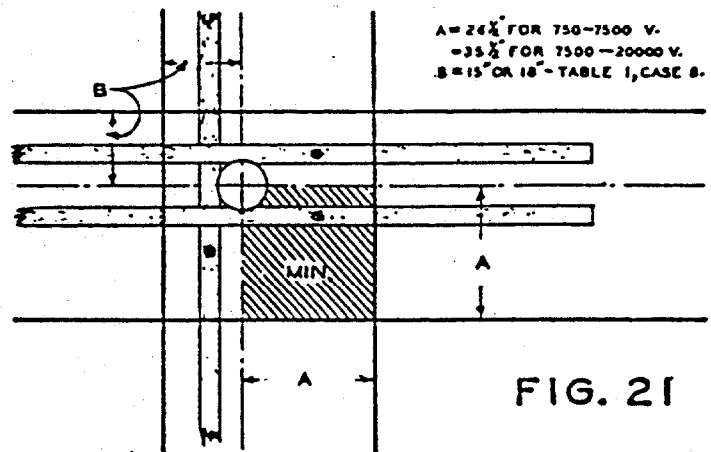
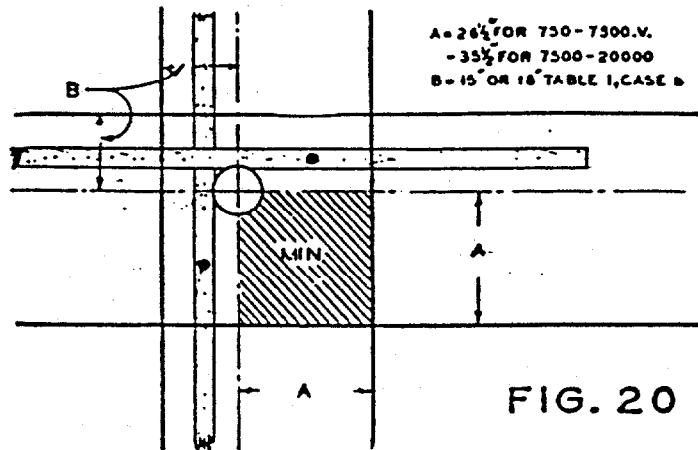


FIG. 19

CLIMBING SPACE  
 LINEARM AND RELATED BUCKARM  
 750 TO 20000 VOLT CONDUCTORS  
 RULE 54.7-A3b





Illustrative Diagrams

CLIMBING SPACE  
FOR COMBINATION ARM CONSTRUCTION

RULE 54.7-A36

CONDITIONS: CLIMBING SPACE IN 0-750 VOLT QUADRANT.  
SEPARATION BETWEEN LINEARM AND RELATED BUCKARM  
4 FT. OR MORE.

NOTE: HEAVY LINES, SOLID OR DASHED, SHOW ALTERNATIVE  
CONDUCTOR POSITIONS NEAREST POLE.

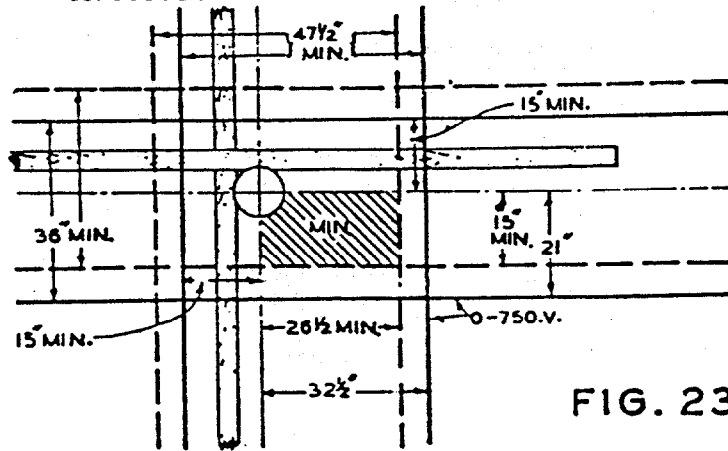


FIG. 23

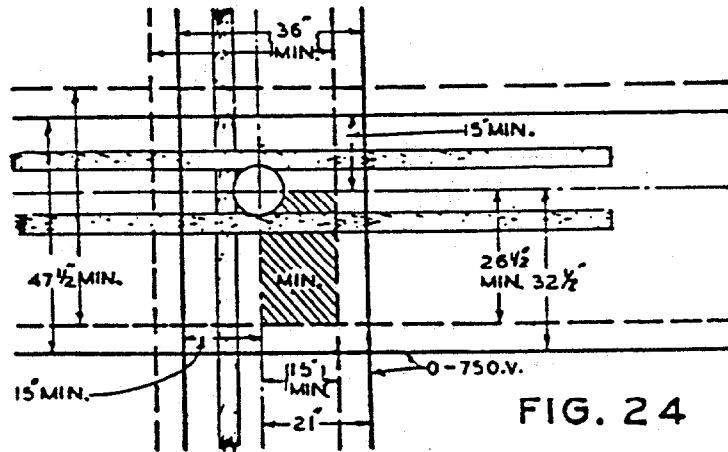


FIG. 24

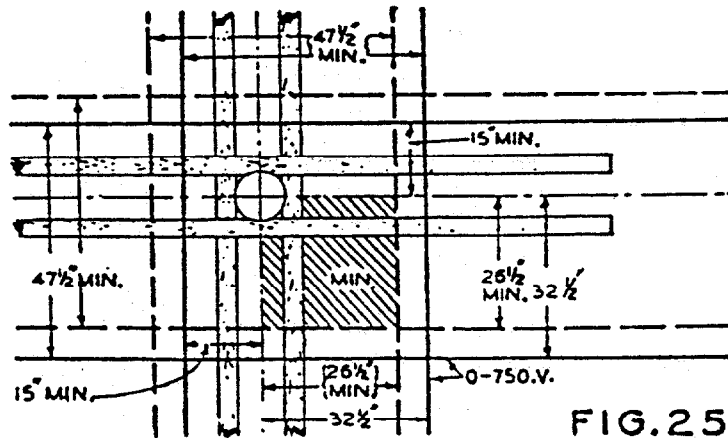


FIG. 25

CLIMBING SPACE  
FOR COMBINATION ARM CONSTRUCTION

RULE 54.7-A3C

CONDITIONS: CLIMBING SPACE IN 750-7500 VOLT QUADRANT  
SEPARATION BETWEEN LINEARM AND RELATED BUCKARM  
4 FT. OR MORE.

NOTE: HEAVY LINES, SOLID OR DASHED, SHOW ALTERNATIVE  
CONDUCTOR POSITION NEAREST POLE.

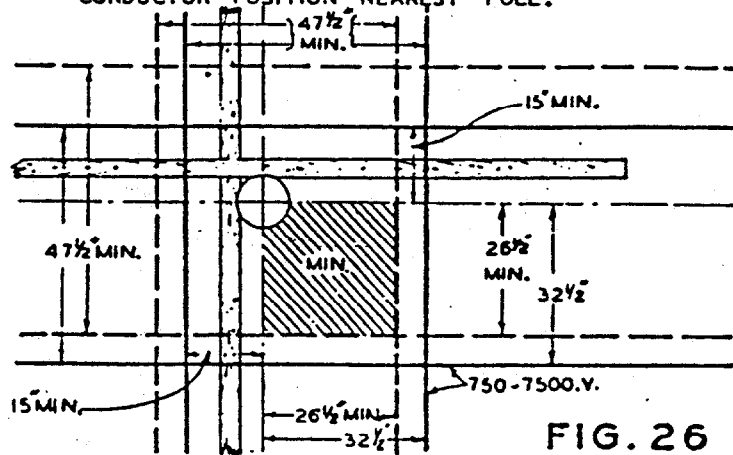


FIG. 26

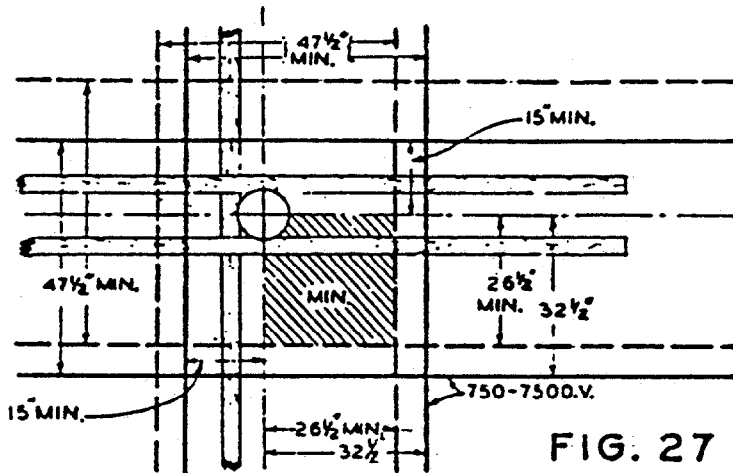


FIG. 27

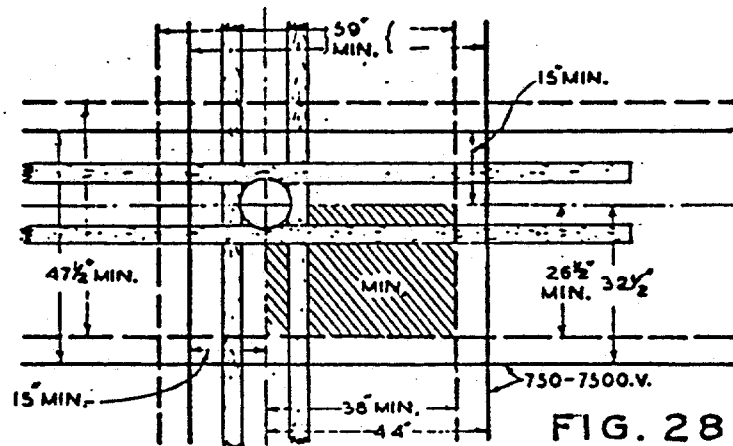


FIG. 28

CLIMBING SPACE

FOR COMBINATION ARM CONSTRUCTION

RULE 54.7-A3c

CONDITIONS: CLIMBING SPACE IN 0-750 VOLT OR 750-7500 VOLT QUADRANT.  
SEPARATION BETWEEN LINEARM AND RELATED BUCKARM  
LESS THAN 4 FT. BUT NOT LESS THAN 2 FT.

NOTE: HEAVY LINES, SOLID OR DASHED, SHOW ALTERNATIVE  
CONDUCTOR POSITION, NEAREST POLE.

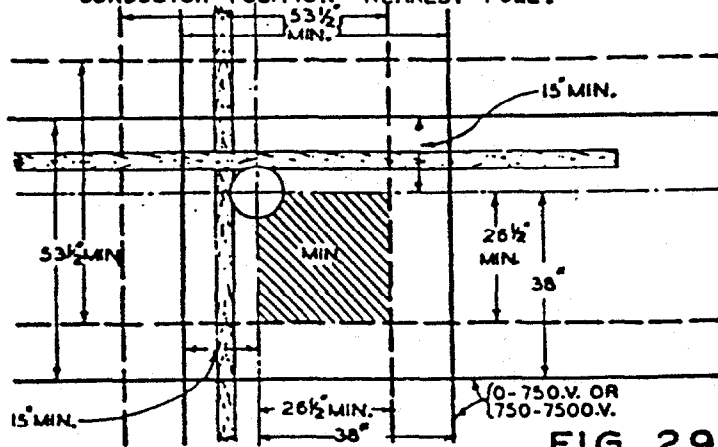


FIG. 29

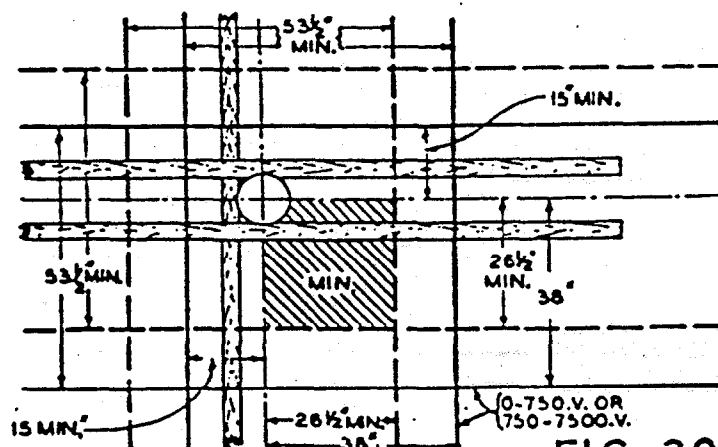


FIG. 30

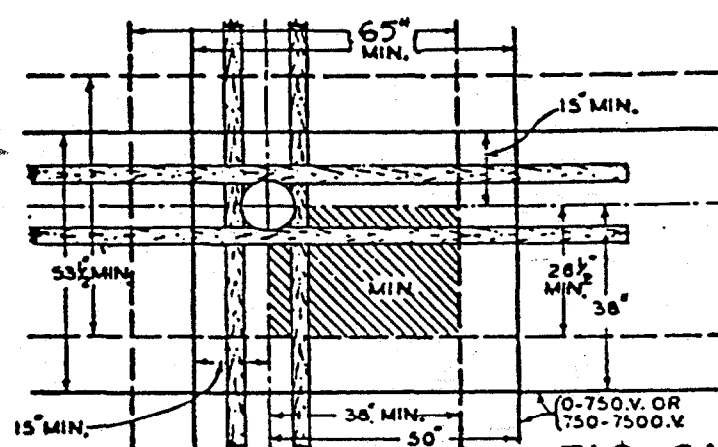


FIG. 31



LOW VOLTAGE RACKS

CONDUCTOR CLEARANCE BELOW TRANSFORMERS

RULE 54.9-E3

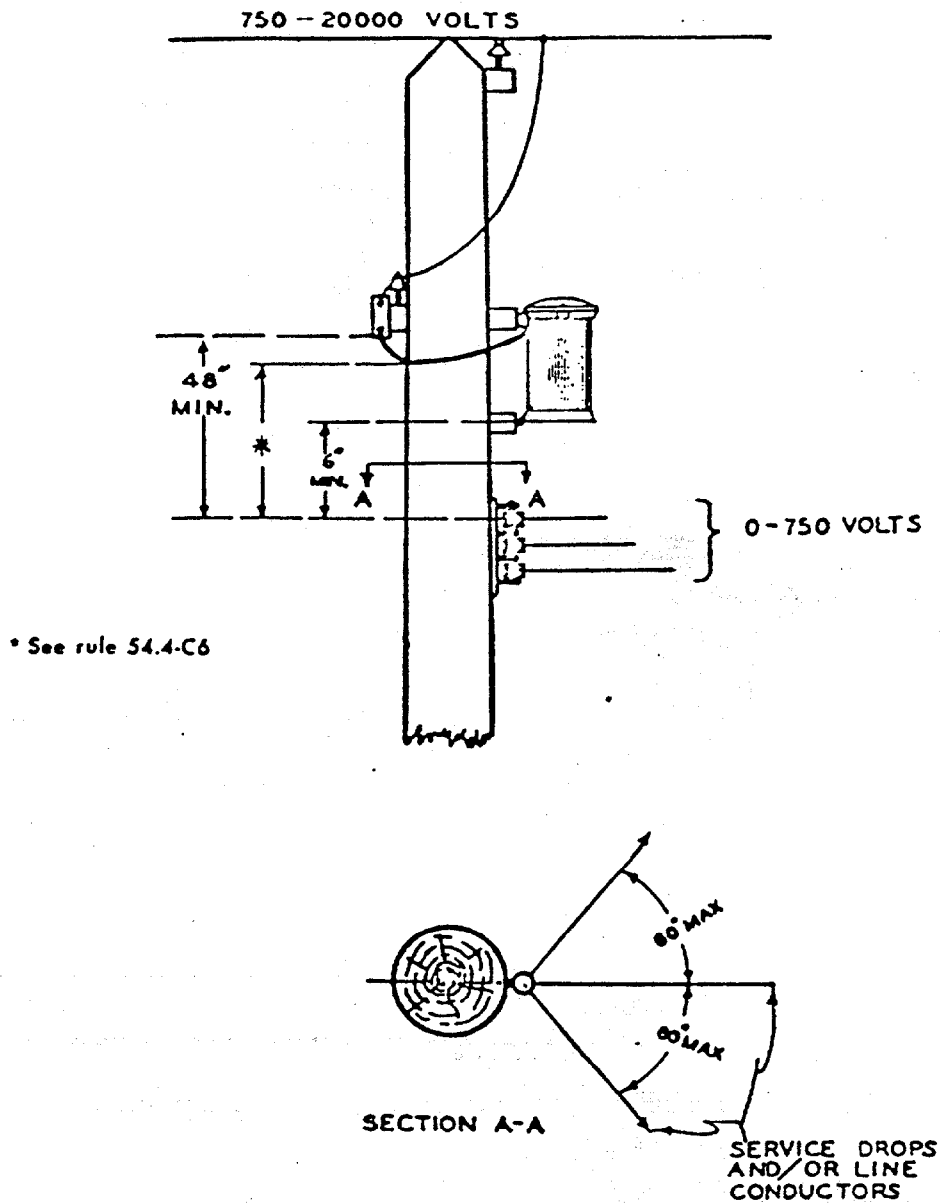
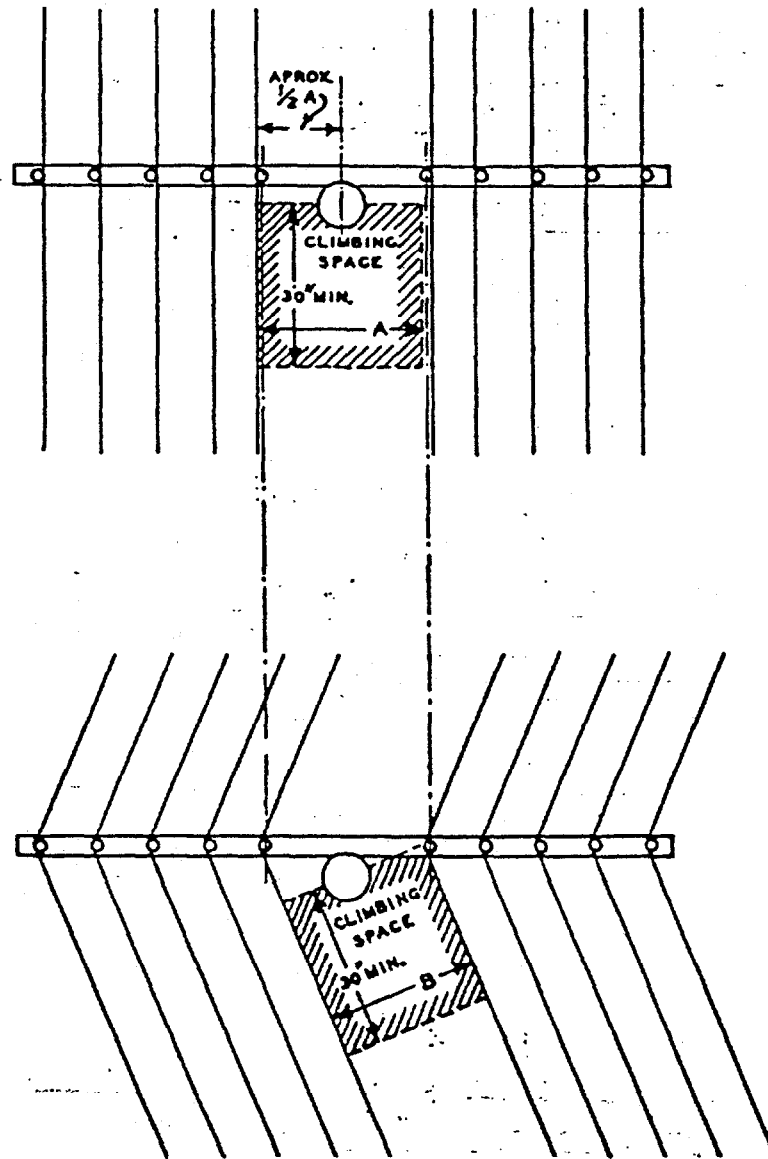


FIG. 33

CLIMBING SPACE  
COMMUNICATION CONDUCTORS ON LINEARMS  
RULES 84.4-D5 AND 84.7-A



A = 30" MIN. OR 18" MIN.  
B = 27 1/2" MIN. OR 16 1/2" MIN.

FIG. 34

*Illustrative Diagrams*

CLIMBING SPACE  
COMMUNICATION CONDUCTORS ON  
LINEARM AND RELATED BUCKARM

RULE 84.7-B

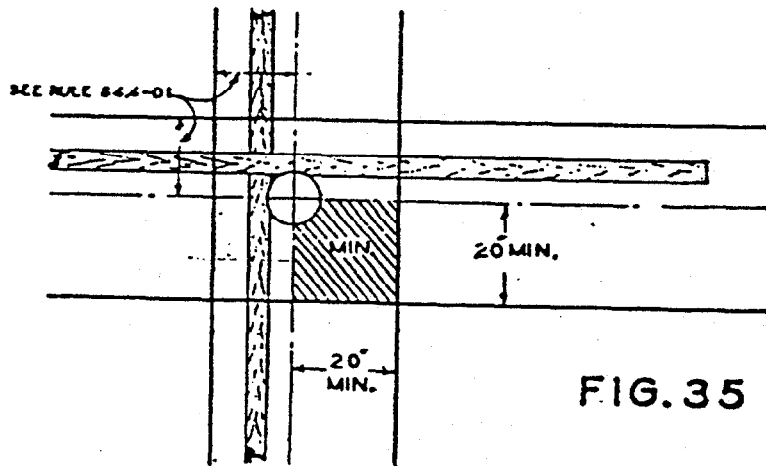


FIG. 35

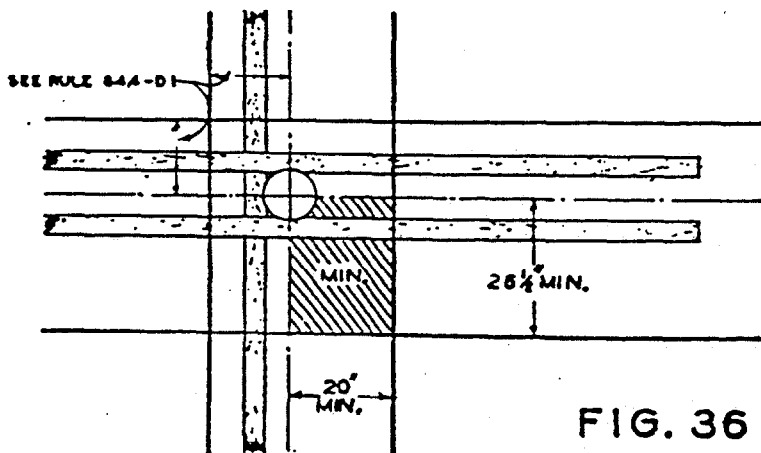


FIG. 36

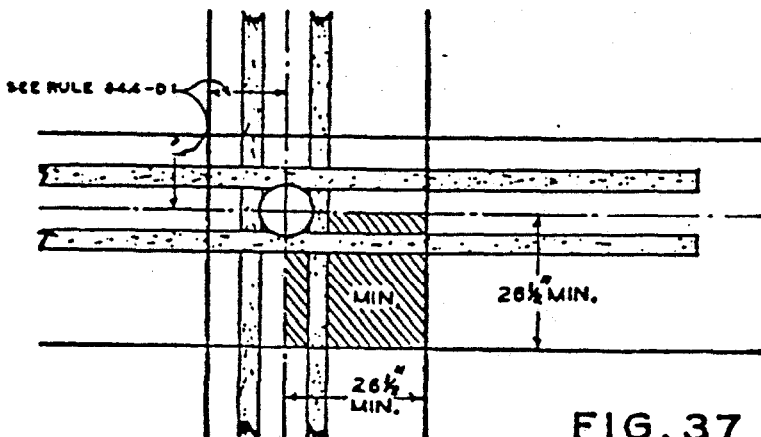


FIG. 37

# COMMUNICATION CONDUCTORS NOT ON CROSSARMS

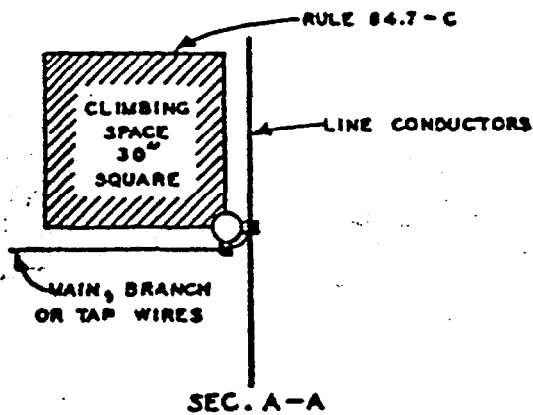
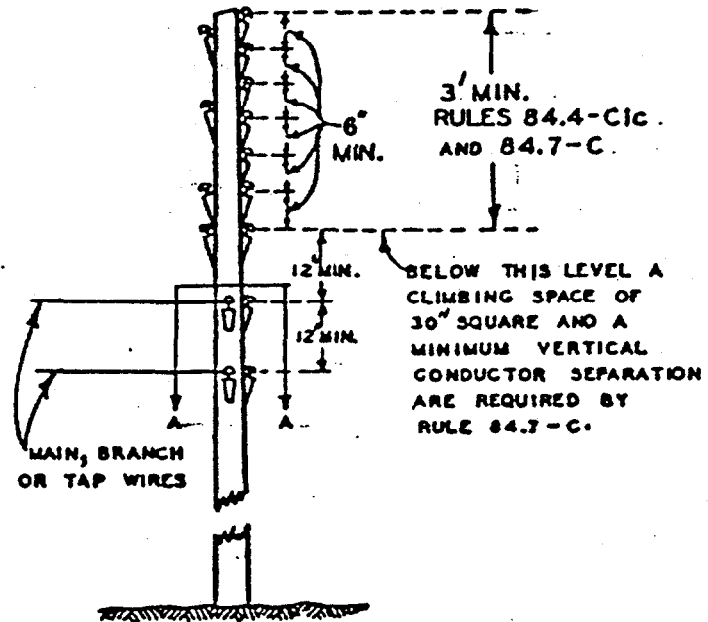


FIG. 38



CLIMBING SPACE

COMMUNICATION SERVICE DROPS NOT ON CROSSARMS

RULE 84.7-D

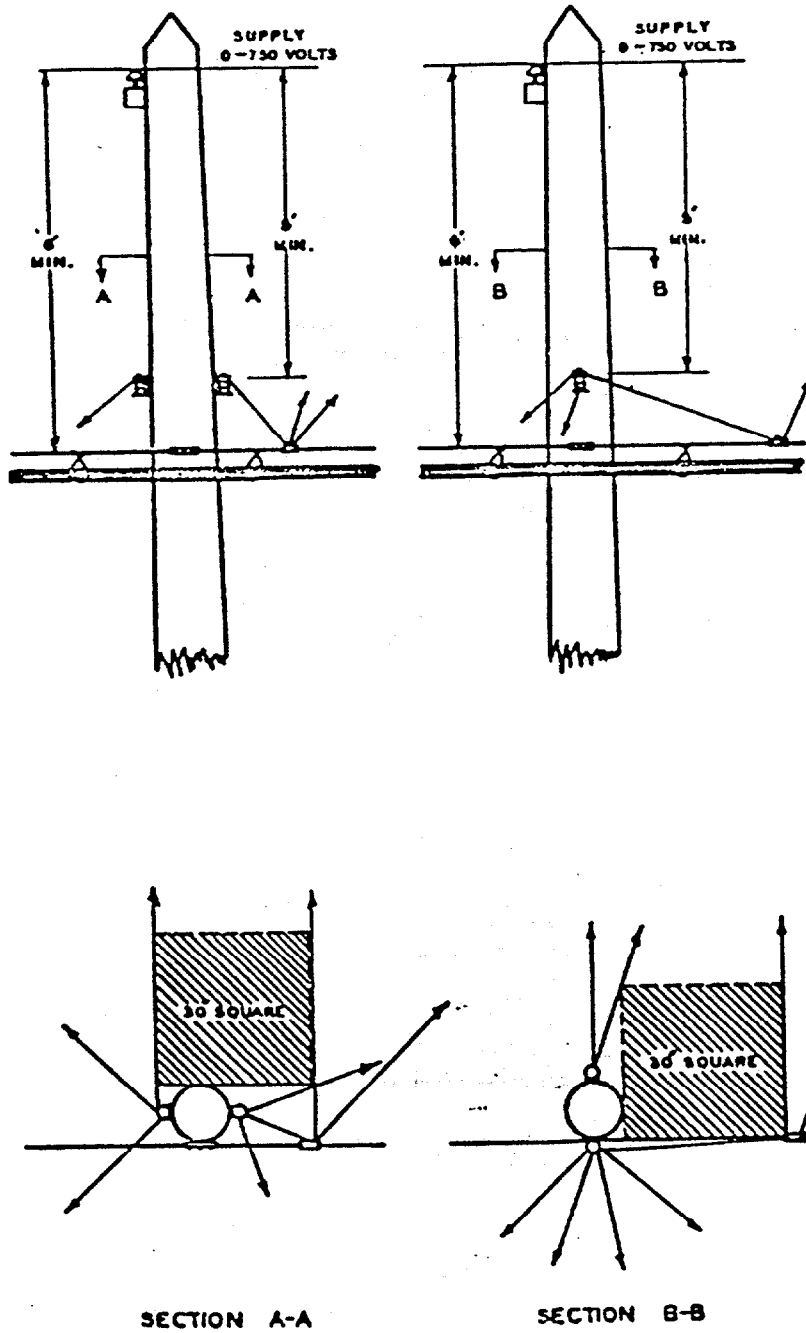


FIG. 39

CLEARANCE ATTACHMENTS  
0-750 VOLT SERVICE DROPS  
RULE 54.8-C2

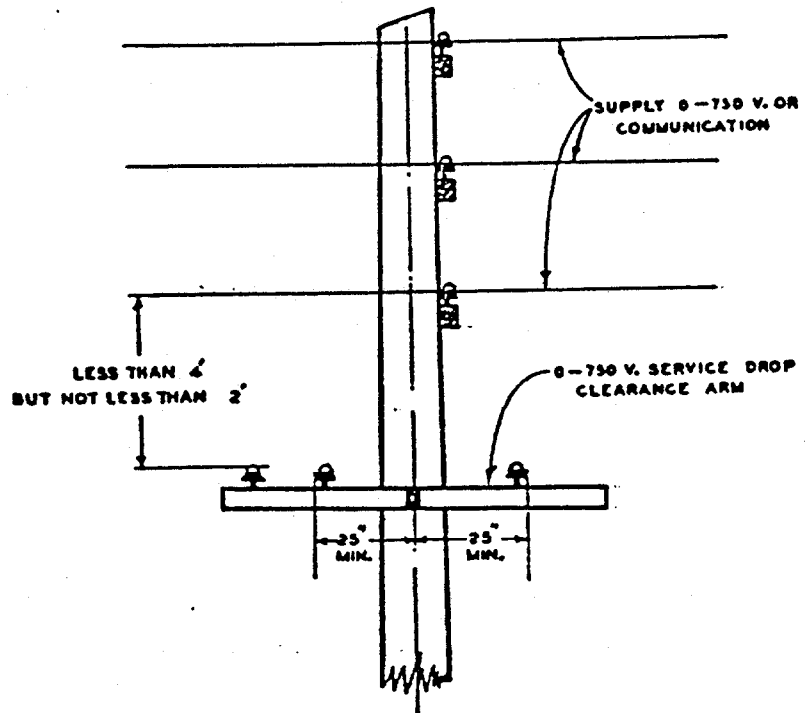
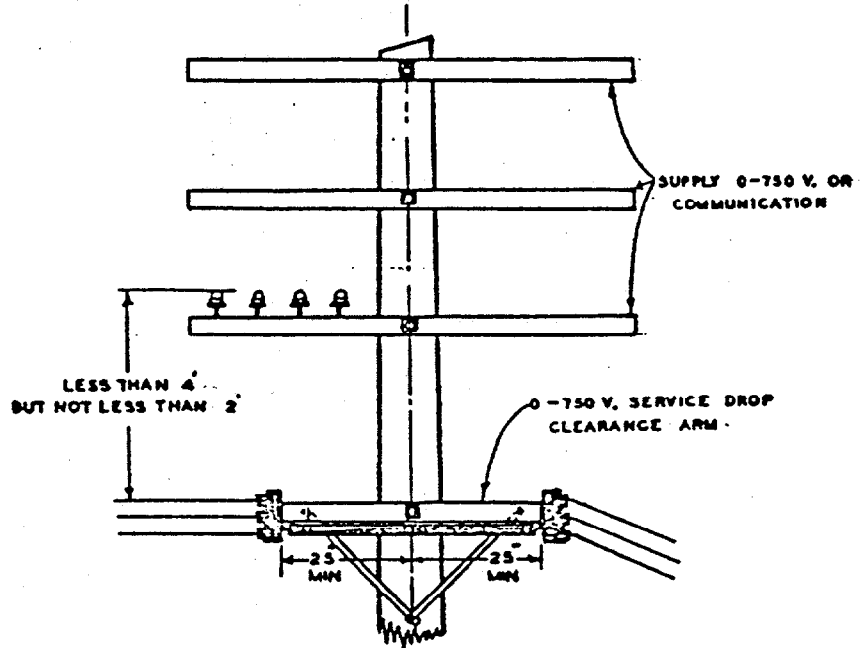


FIG. 40

Illustrative Diagrams

SUPPLY SERVICE DROPS 0-750 VOLTS  
CROSSING CLASS 'C' LINE

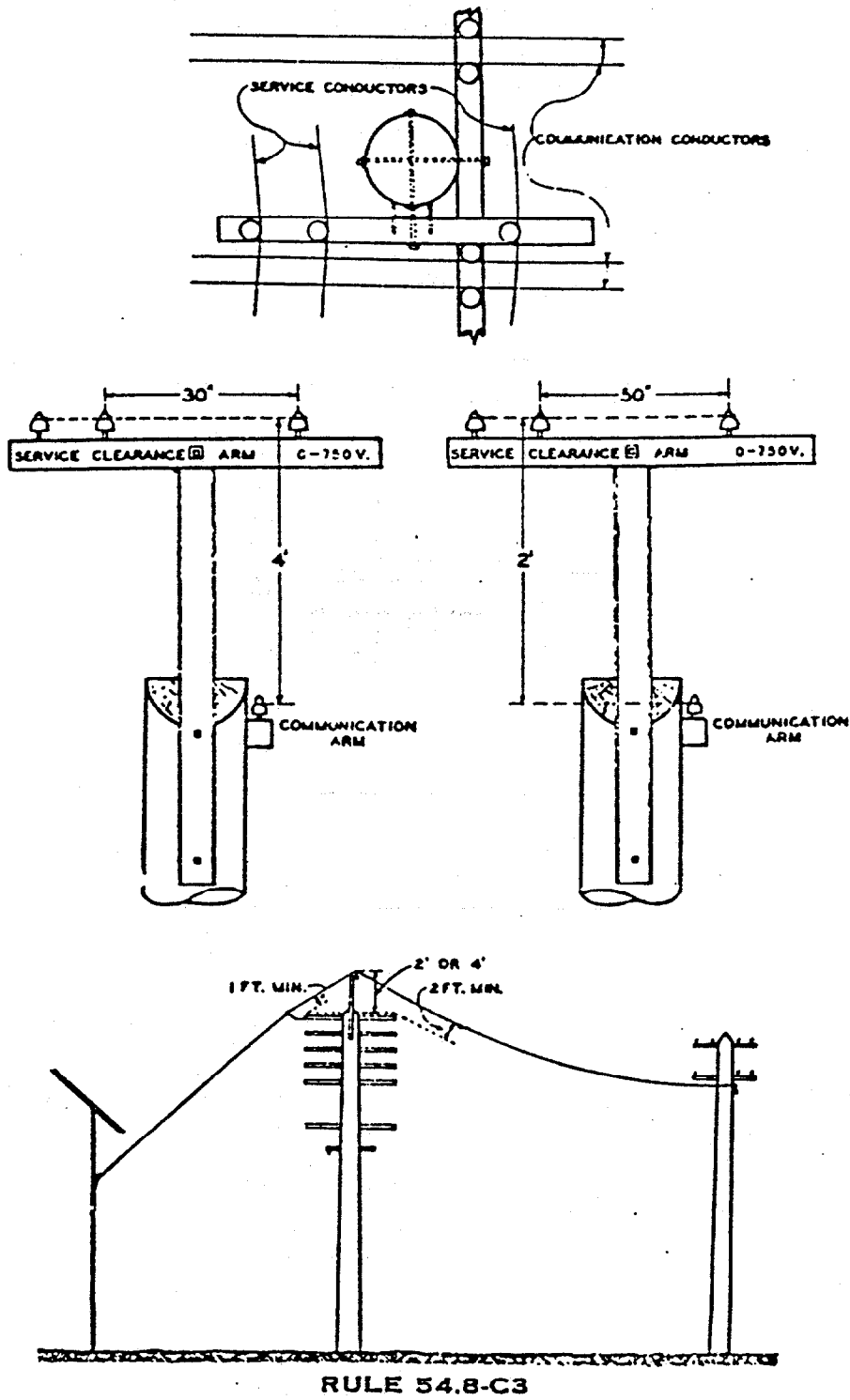


FIG. 41