	C1	C2	C3	C4	C5	C6
R1	**10** V	**10** V	**10** V	2 V	0 V	0 V
R2	3 V	**10** V	**10** V	**9** V	1 V	0 V
R3	1 V	3 V	**8** V	**9** V	7 V	1 V
R4	0 V	1 V	3 V	7 V	**8** V	7 V
R5	0 V	0 V	1 V	3 V		
R6	0 V	0 V	0 V	1 V	3 V	

FIG. 9e

8e

	C1	C2	C3	C4	C5	C6
R1						
R2						
R3						
R4						
R5					**12** H	**12** H
R6						**8** H

FIG. 9f

8f

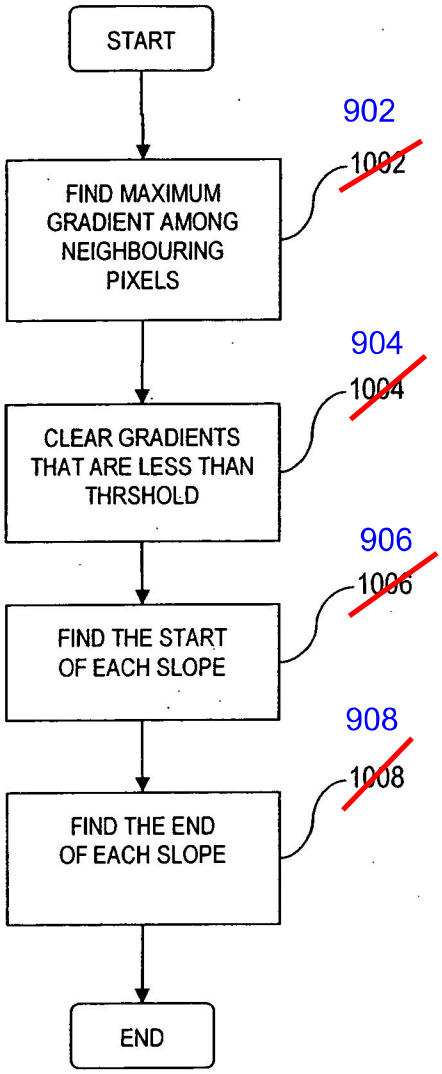

START
902
1002
FIND MAXIMUM GRADIENT AMONG NEIGHBOURING PIXELS
904
1004
CLEAR GRADIENTS THAT ARE LESS THAN THRSHOLD
906
1006
FIND THE START OF EACH SLOPE
908
1008
FIND THE END OF EACH SLOPE
END

FIG. 10

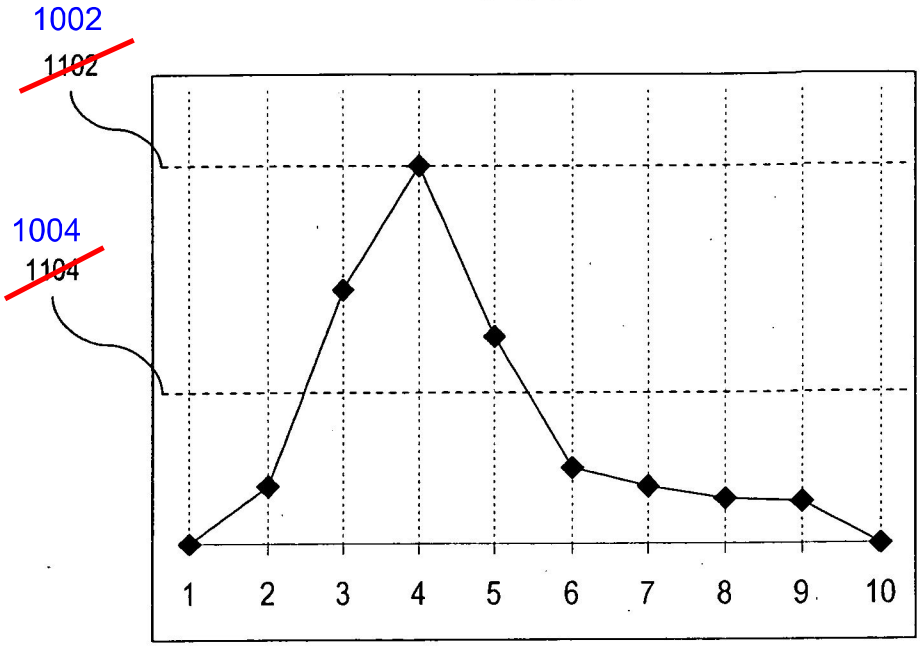


FIG. 11a
10a

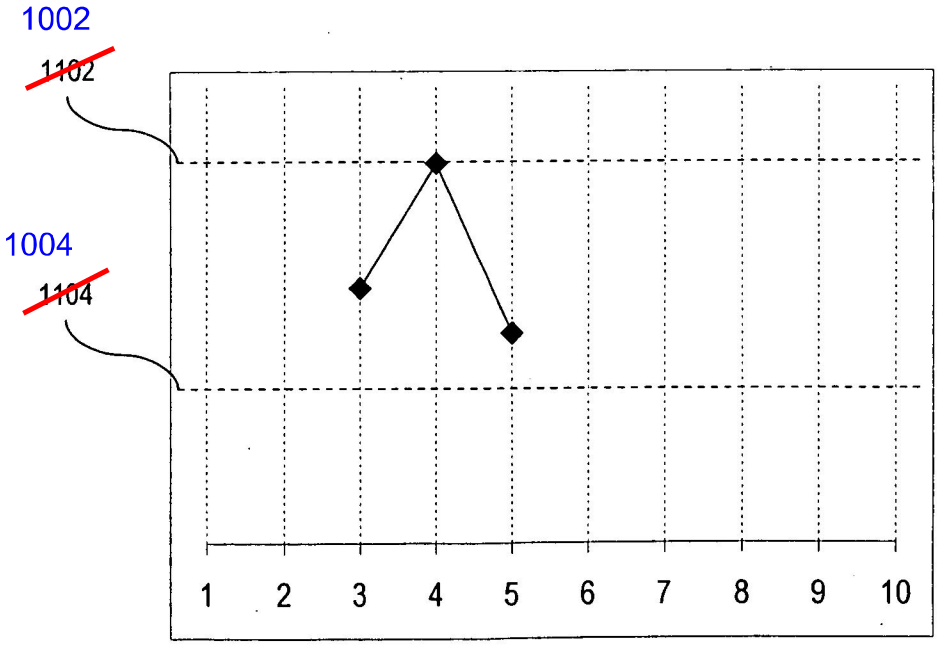


FIG. 11b
10b

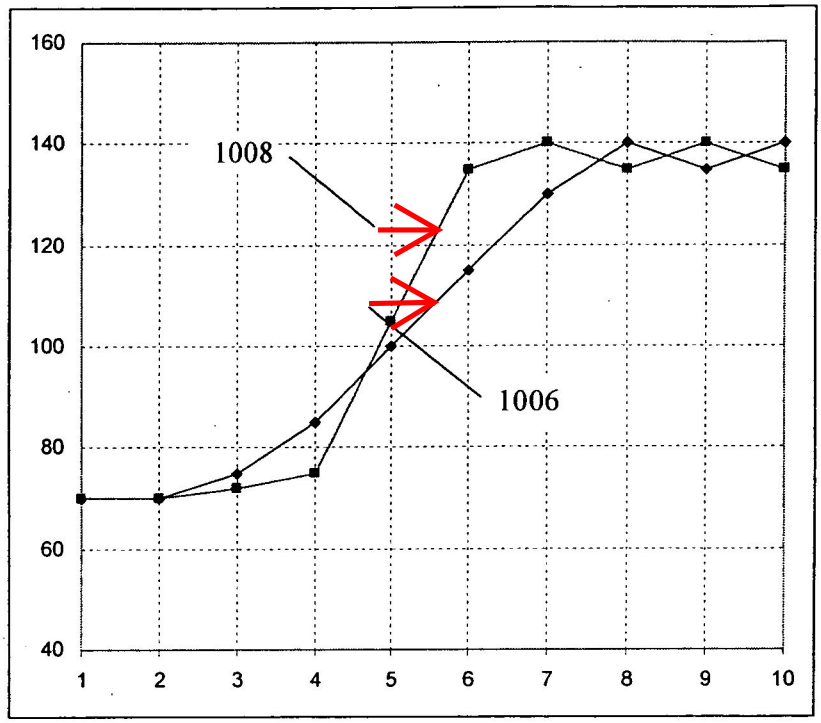


FIGURE 10c

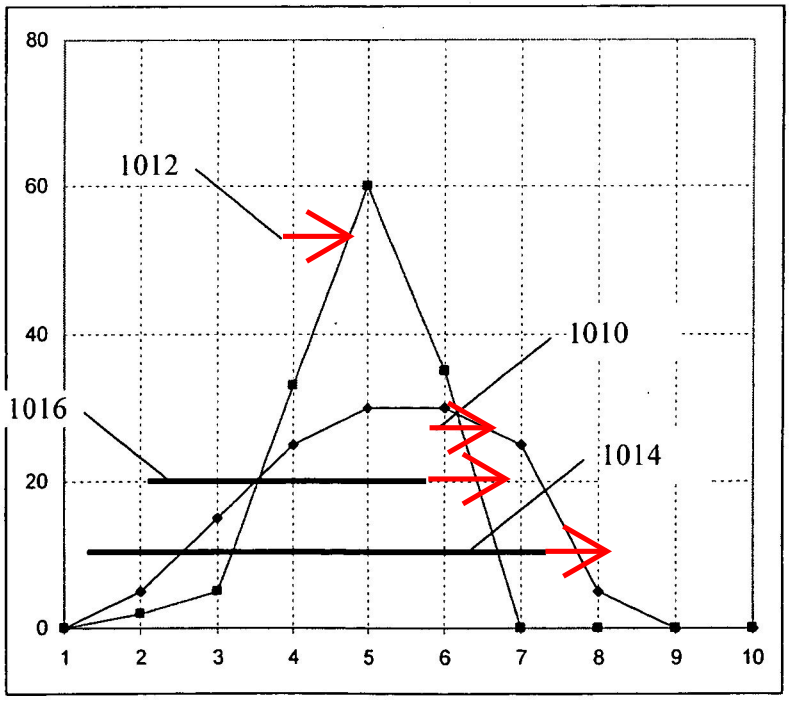


FIGURE 10d

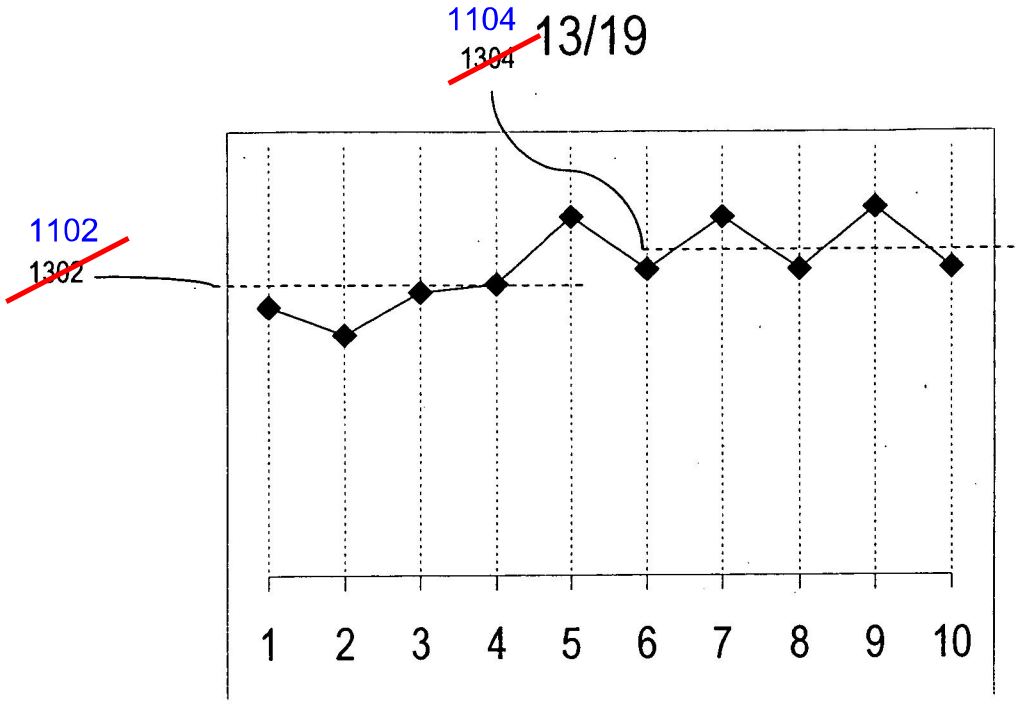


FIG. 13a

11a

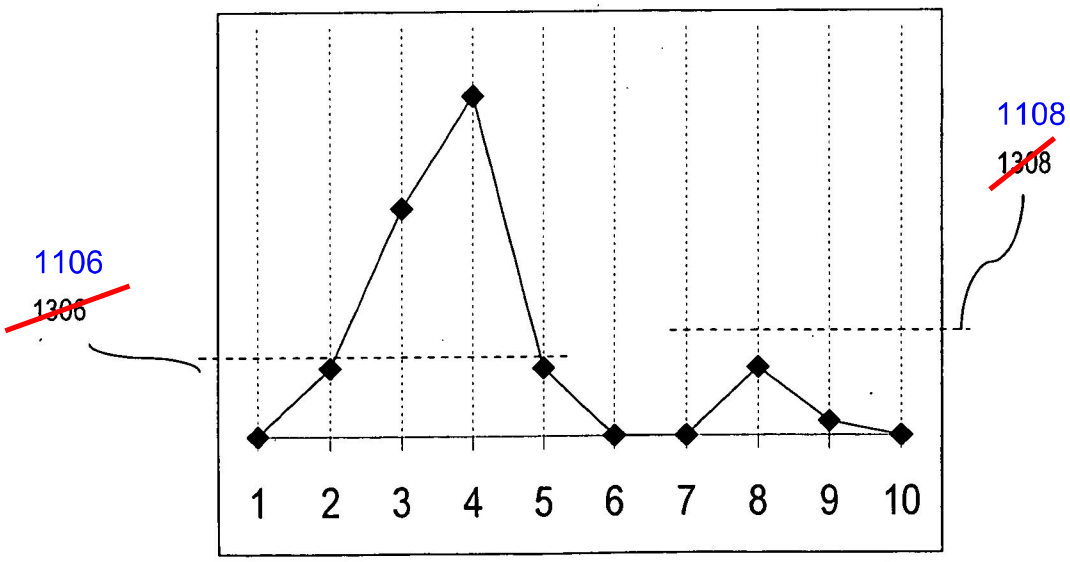


FIG. 13b

11b

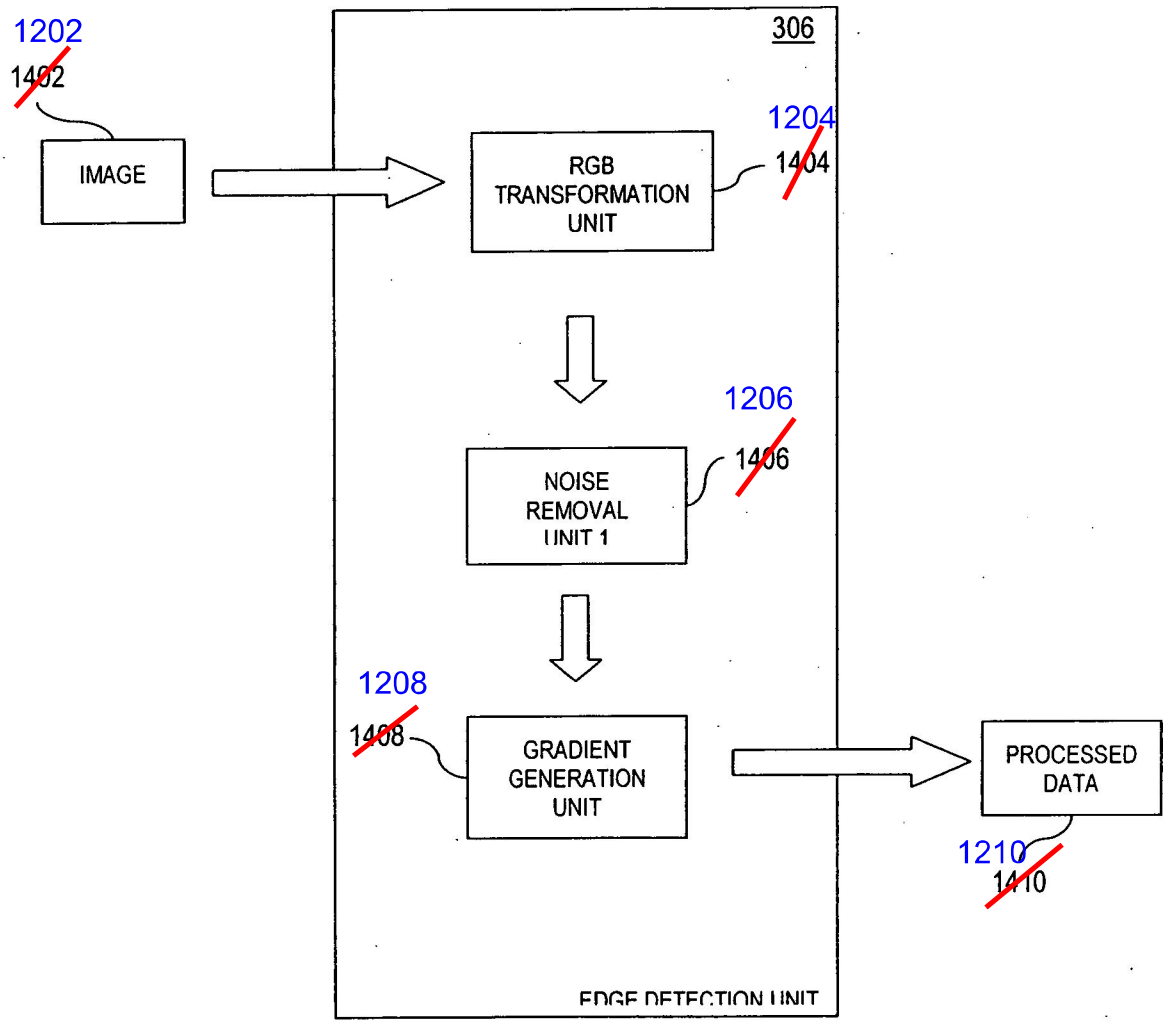

1202
1402
IMAGE
306
1204
1404
RGB TRANSFORMATION UNIT
1206
1406
NOISE REMOVAL UNIT 1
1208
1408
GRADIENT GENERATION UNIT
PROCESSED DATA
1210
1410
EDGE DETECTION UNIT

FIG. 14

12

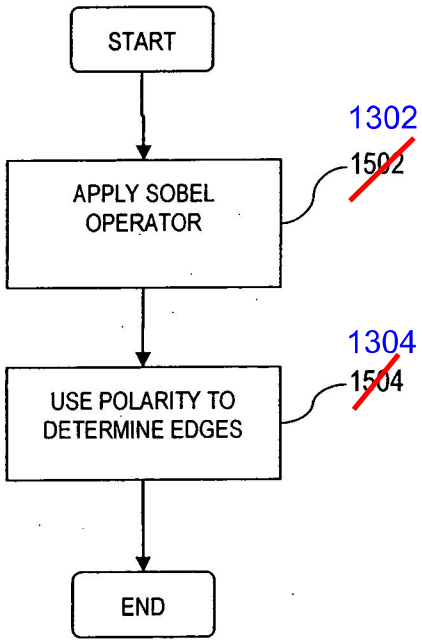

START
1302
1502
APPLY SOBEL OPERATOR
1304
1504
USE POLARITY TO DETERMINE EDGES
END

FIG. 15

13

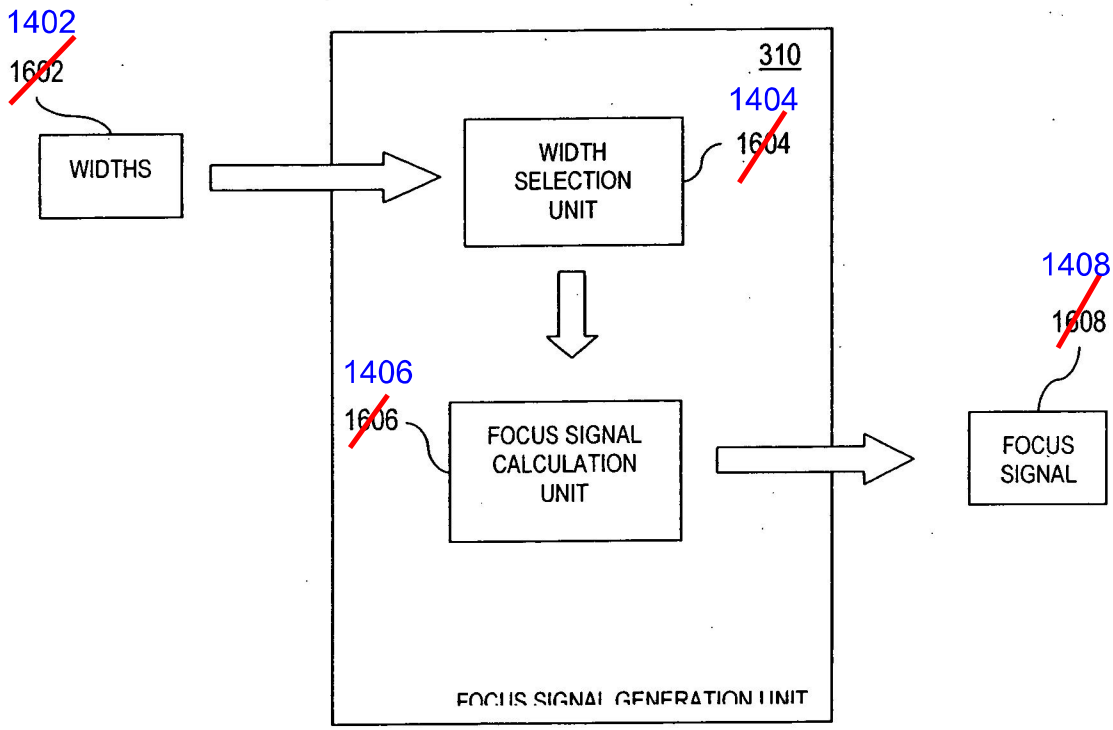

1402
1602
WIDTHS
310
1404
1604
WIDTH SELECTION UNIT
1406
1606
FOCUS SIGNAL CALCULATION UNIT
1408
1608
FOCUS SIGNAL
FOCUS SIGNAL GENERATION UNIT

FIG. 16

14

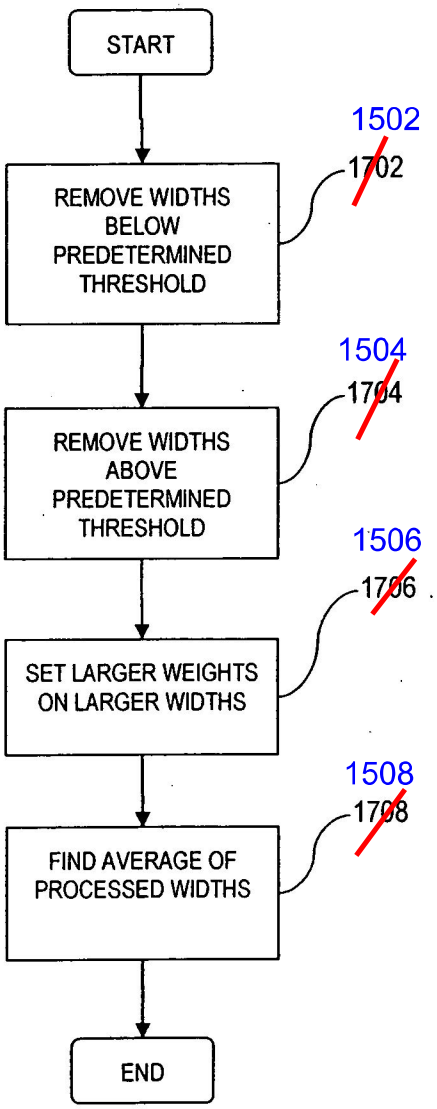

START
1502
1702
REMOVE WIDTHS BELOW PREDETERMINED THRESHOLD
1504
1704
REMOVE WIDTHS ABOVE PREDETERMINED THRESHOLD
1506
1706
SET LARGER WEIGHTS ON LARGER WIDTHS
1508
1708
FIND AVERAGE OF PROCESSED WIDTHS
END

FIG. 17

15

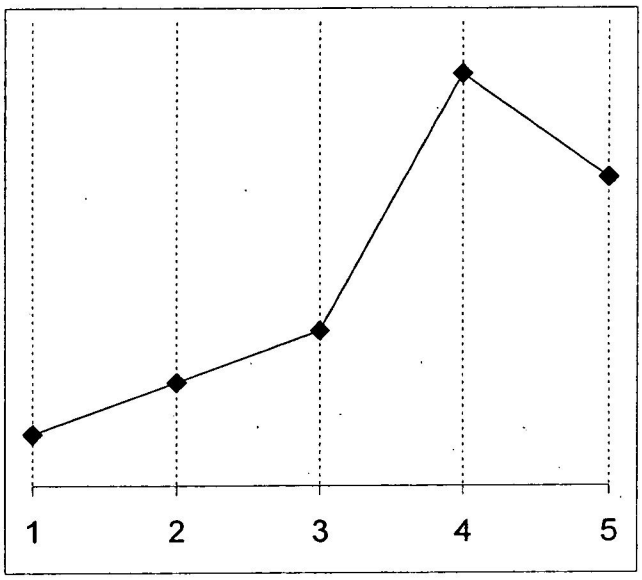


FIG. 18a

16a

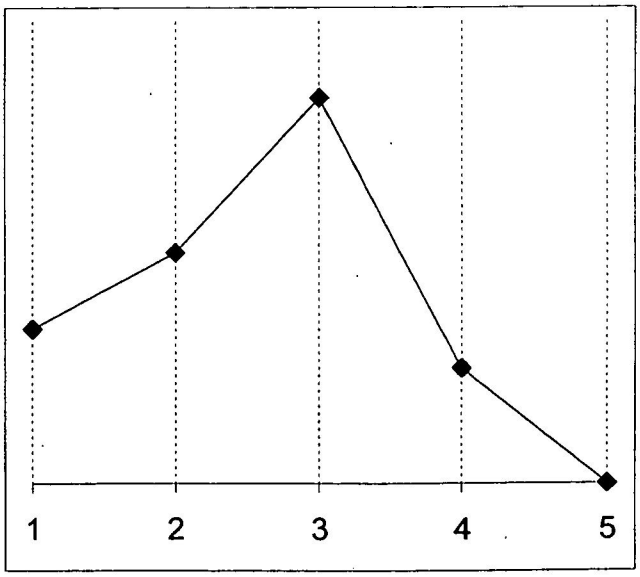


FIG. 18b

16b

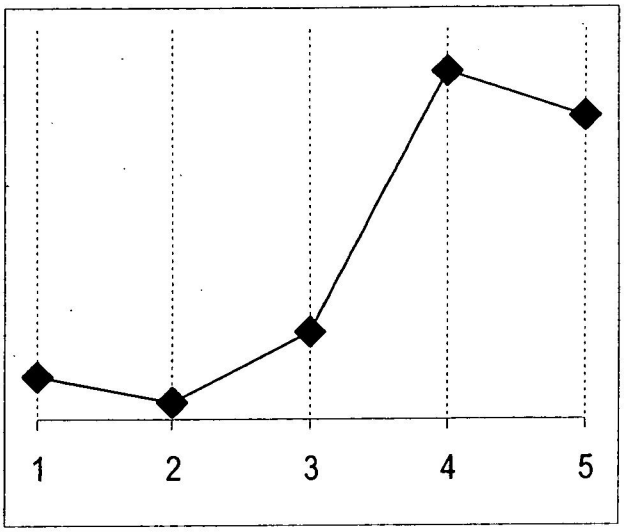


FIG. 19a

17a

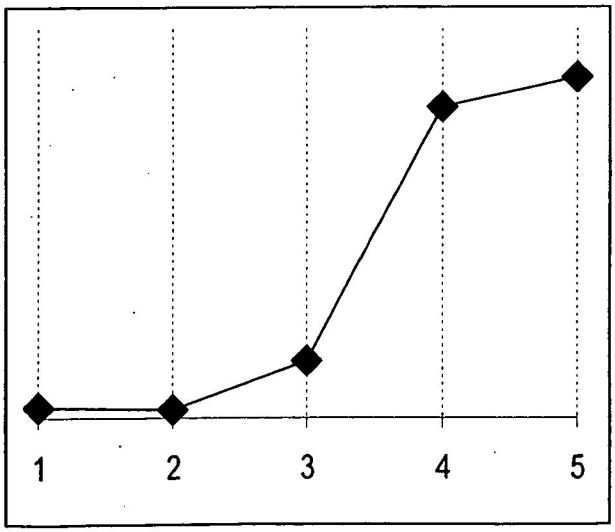


FIG. 19b

17b