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FIG.1A

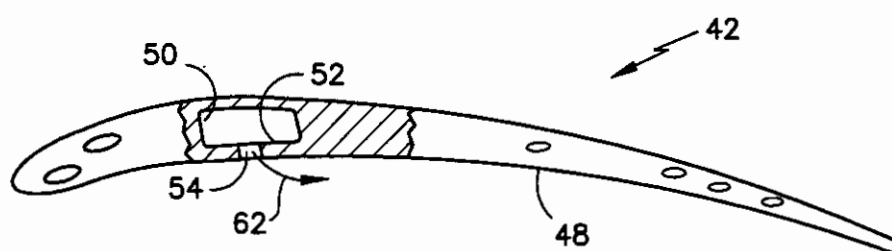
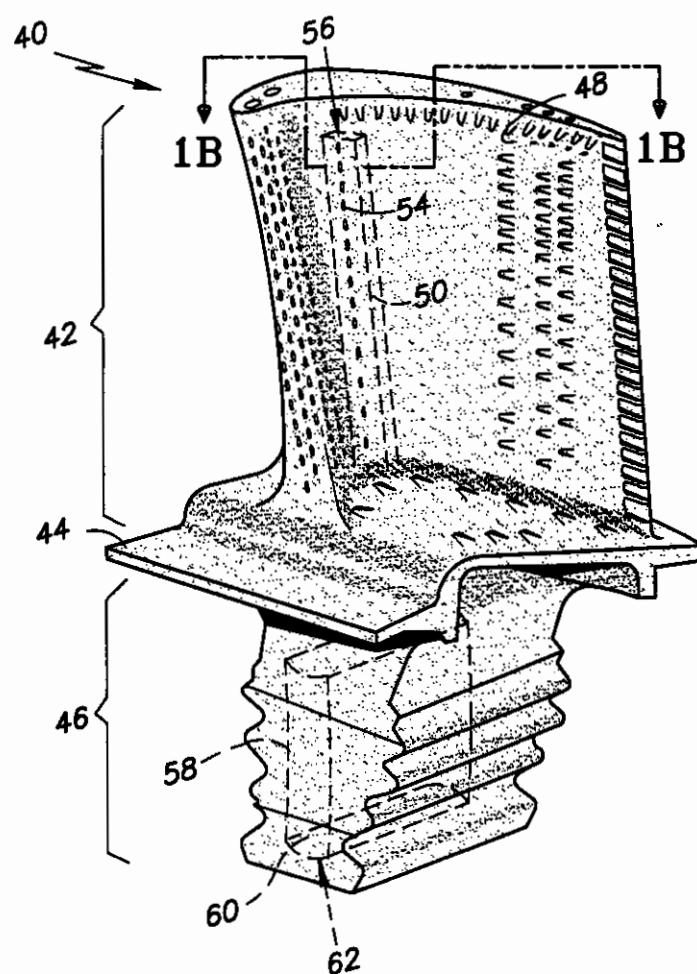
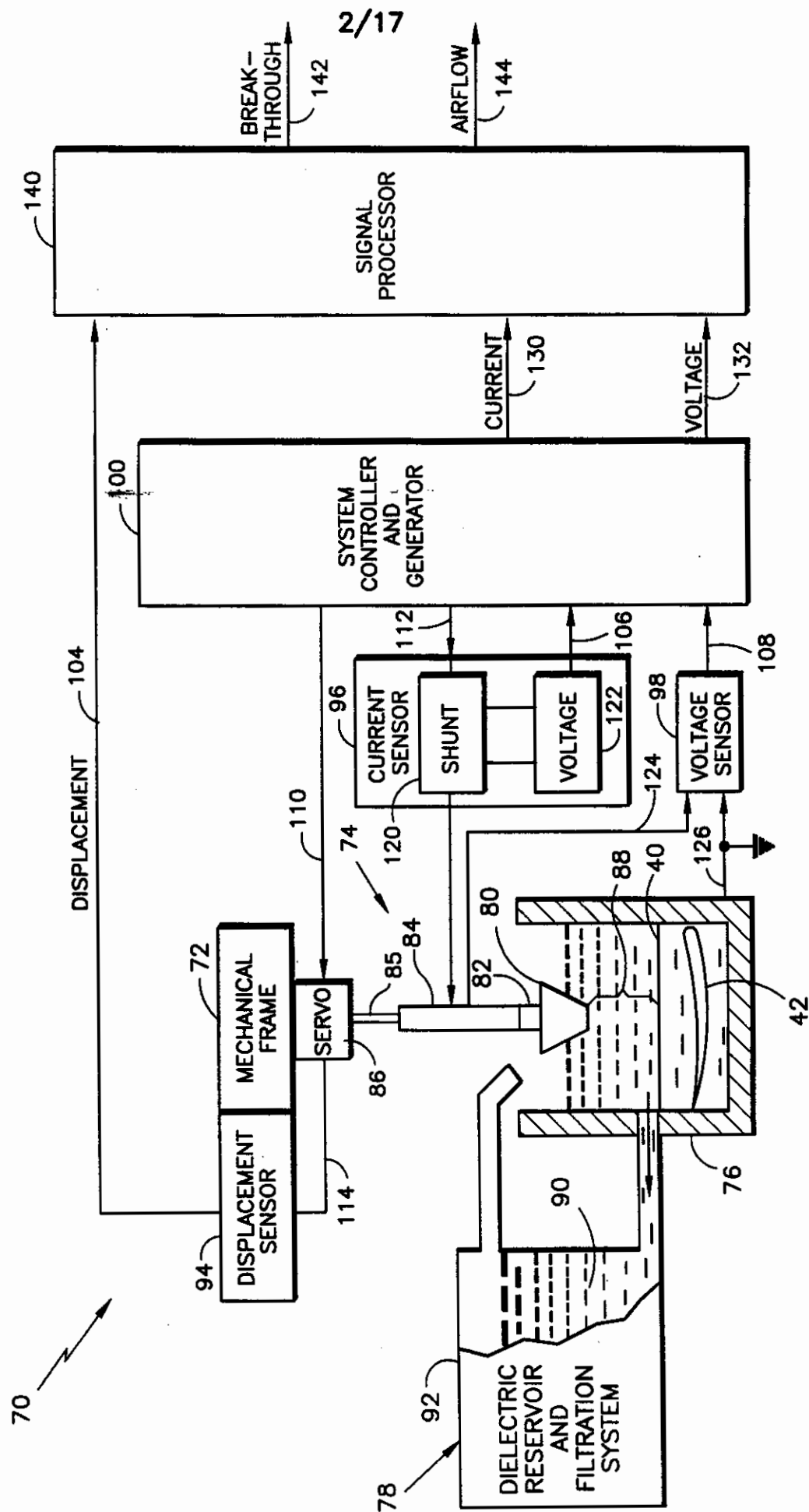


FIG.1B

FIG.2



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FIG. 3A

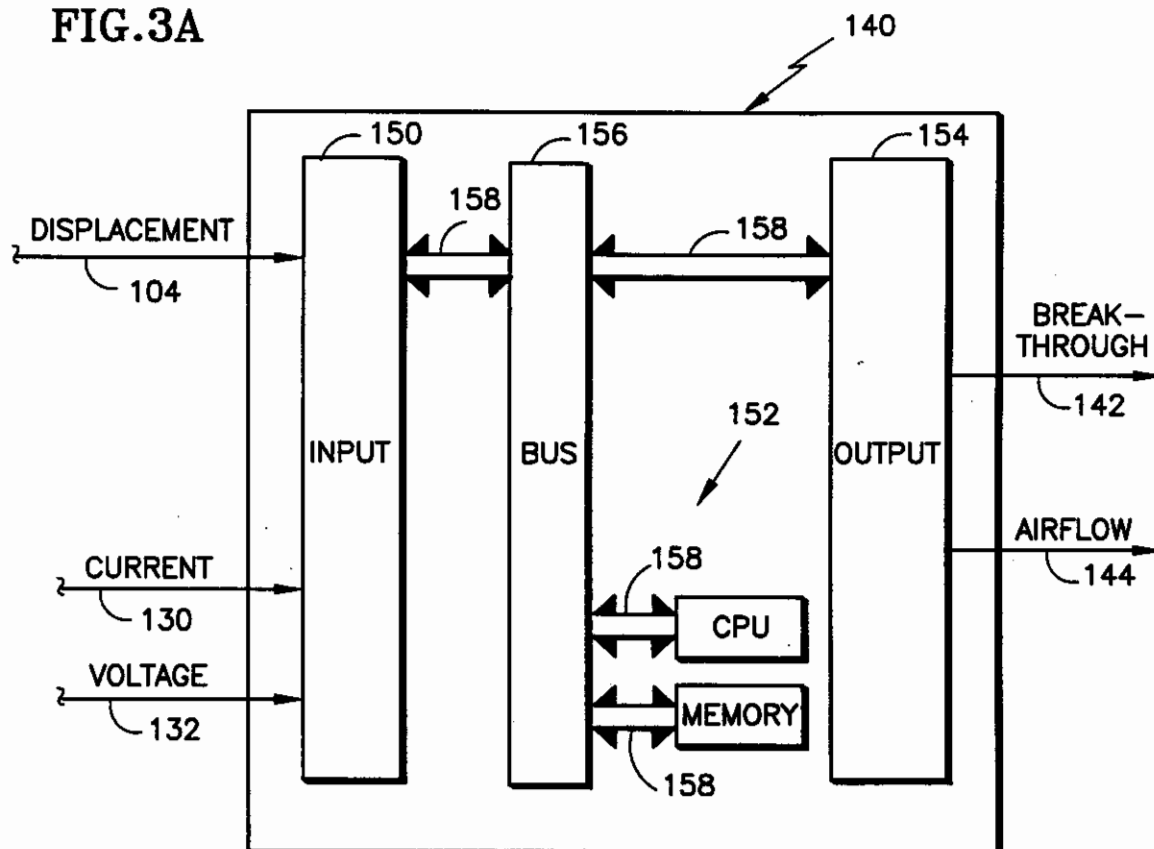
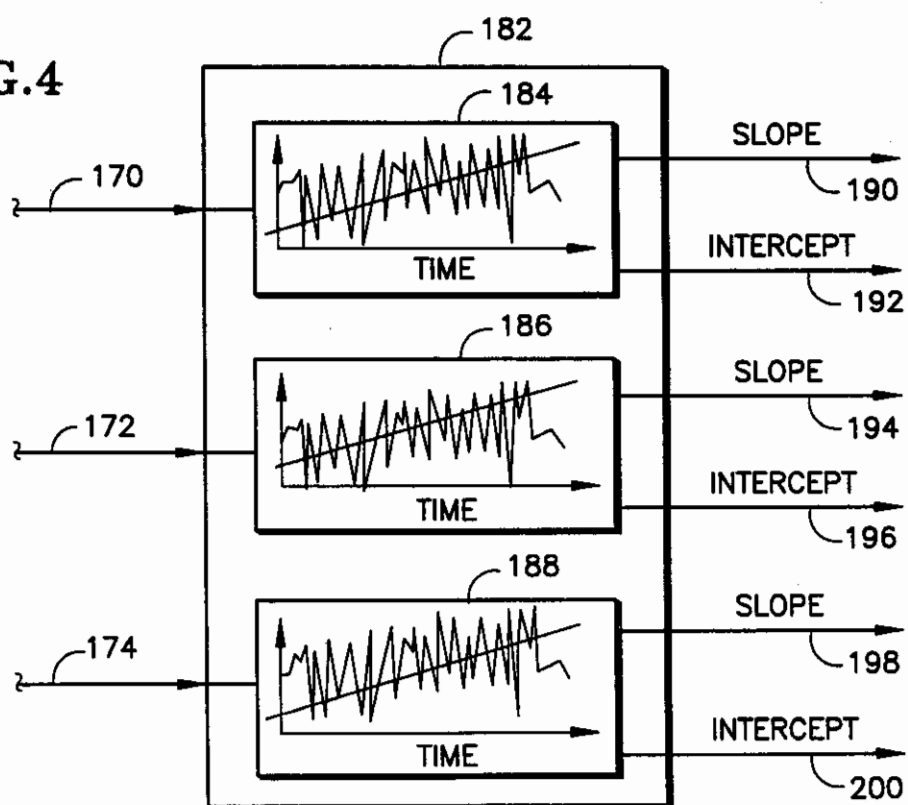
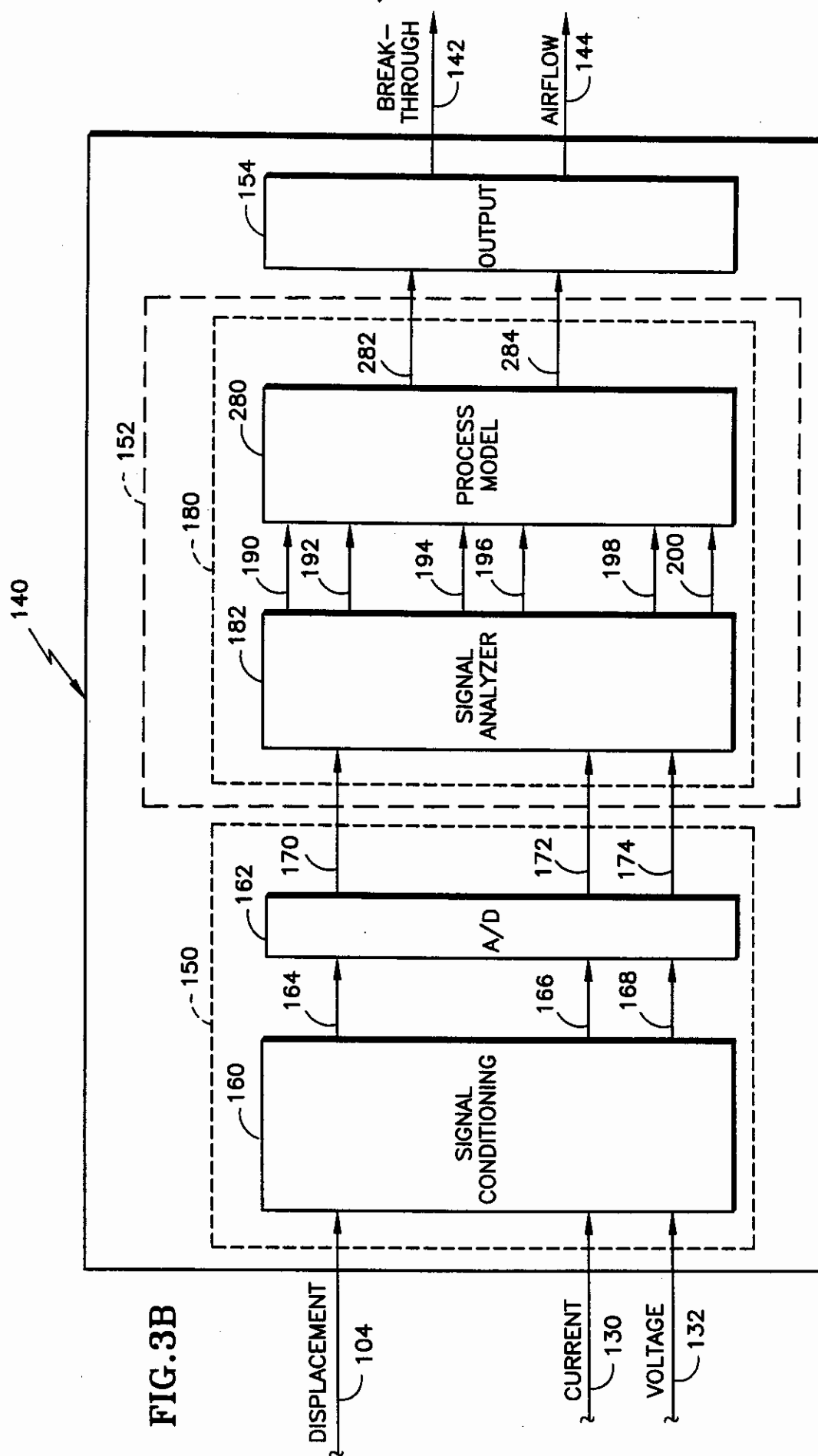


FIG. 4



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FIG.5

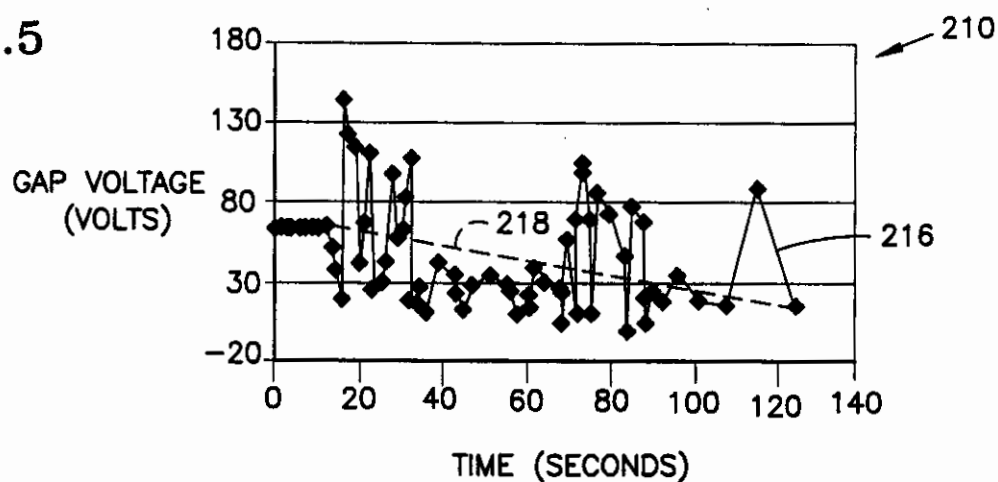


FIG.6

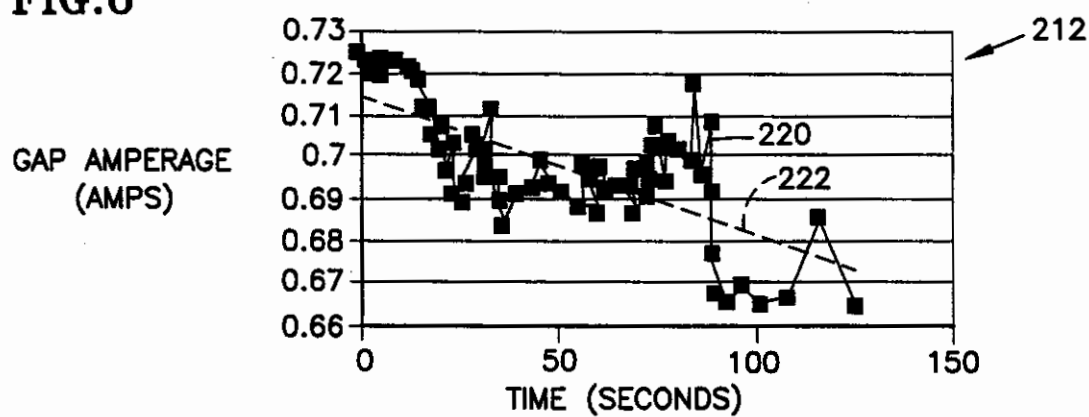
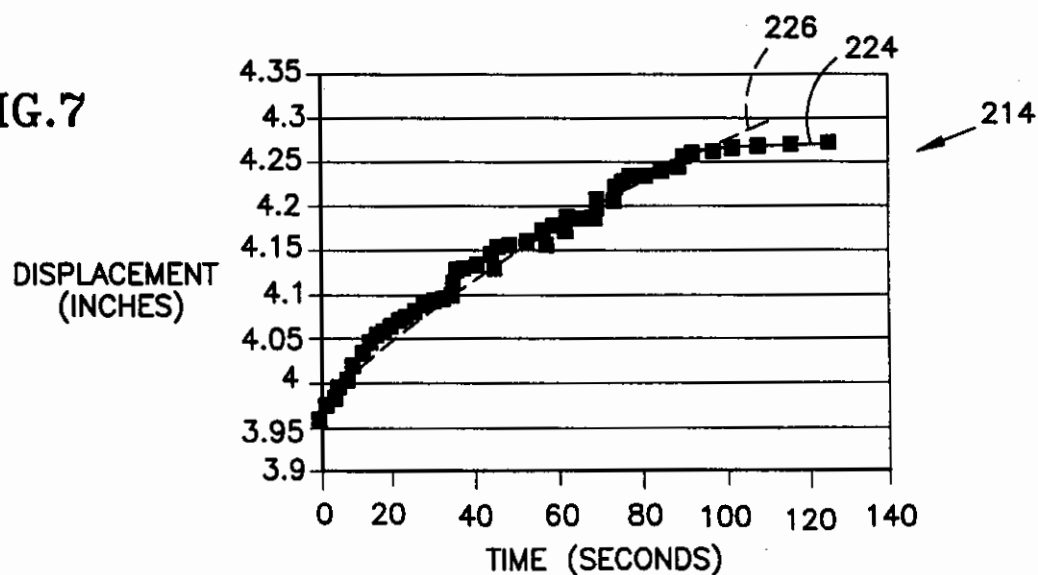


FIG.7



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FIG.8

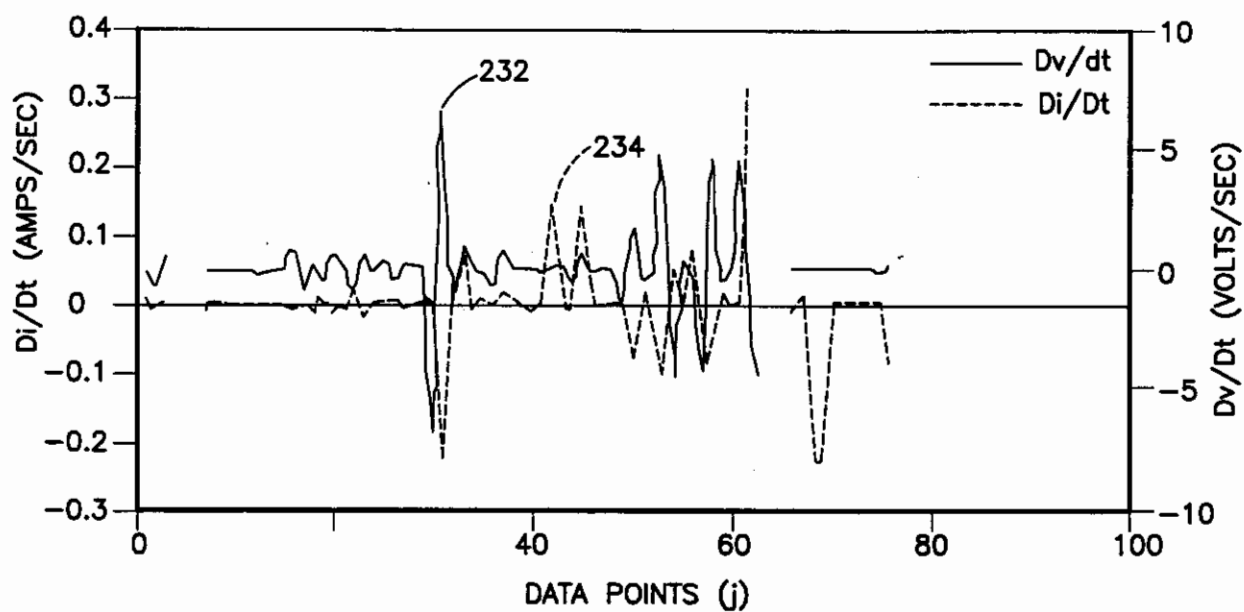
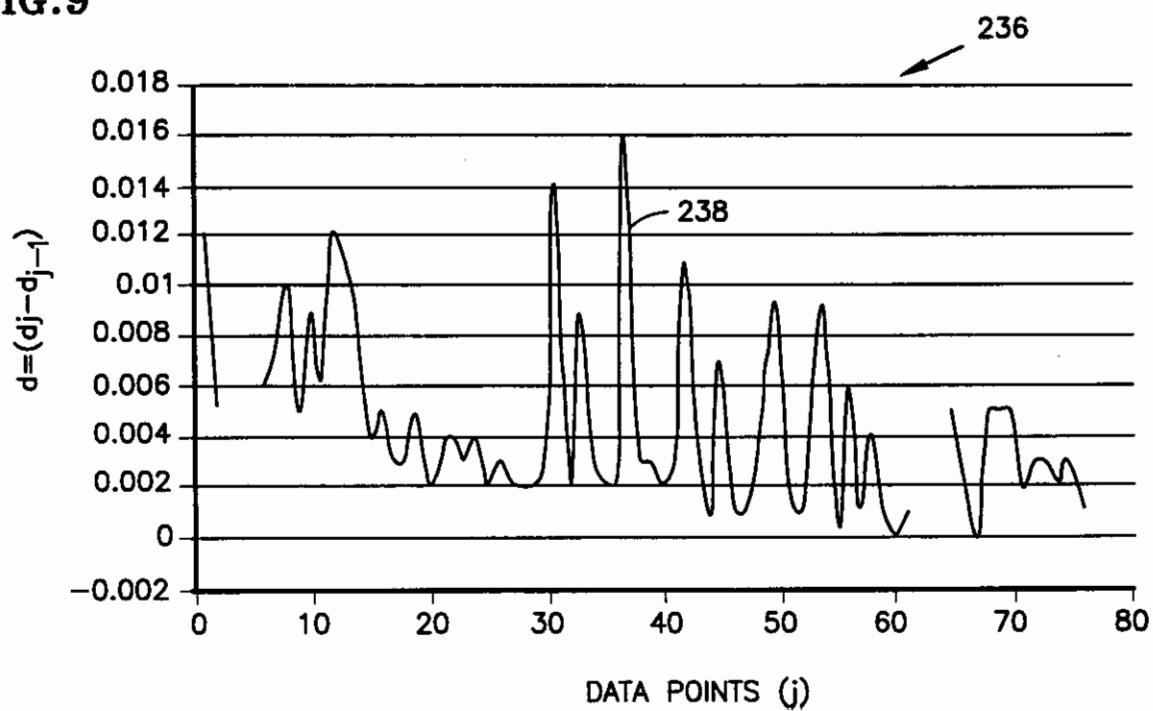


FIG.9



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FIG.10

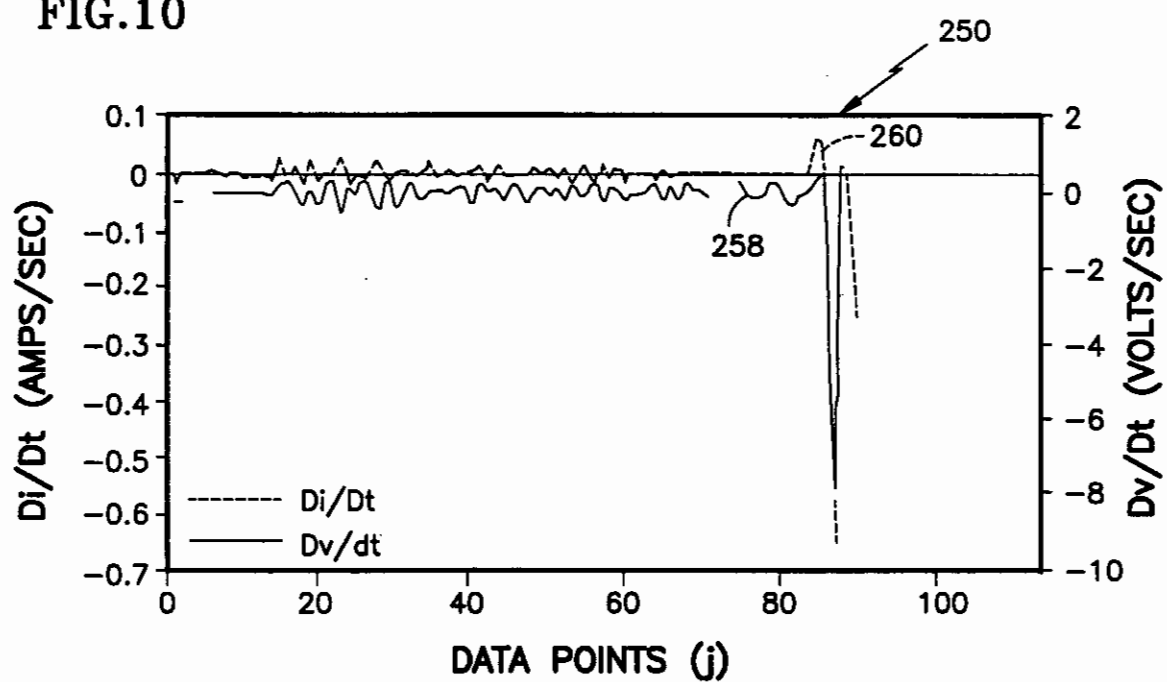
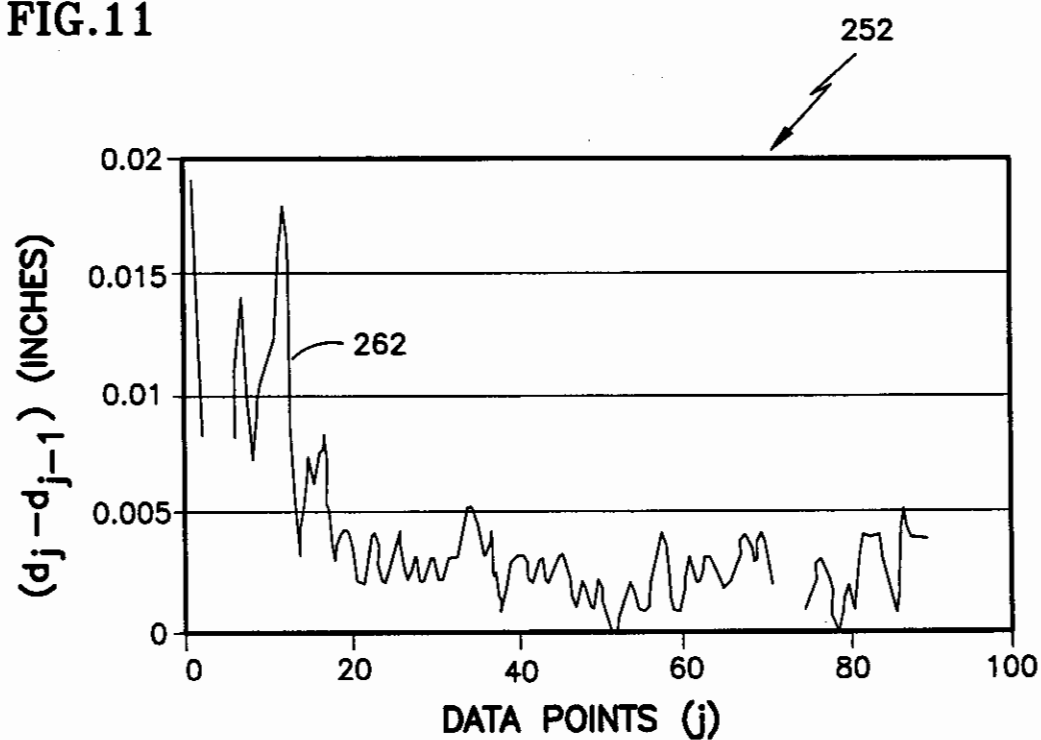


FIG.11



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FIG.12

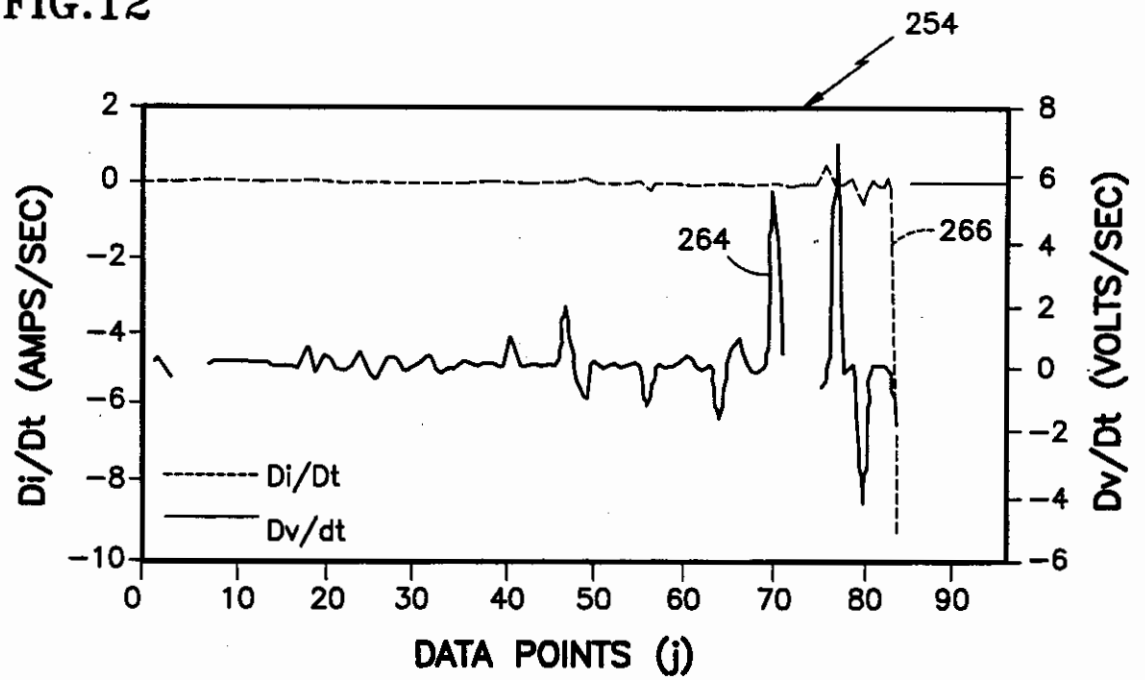
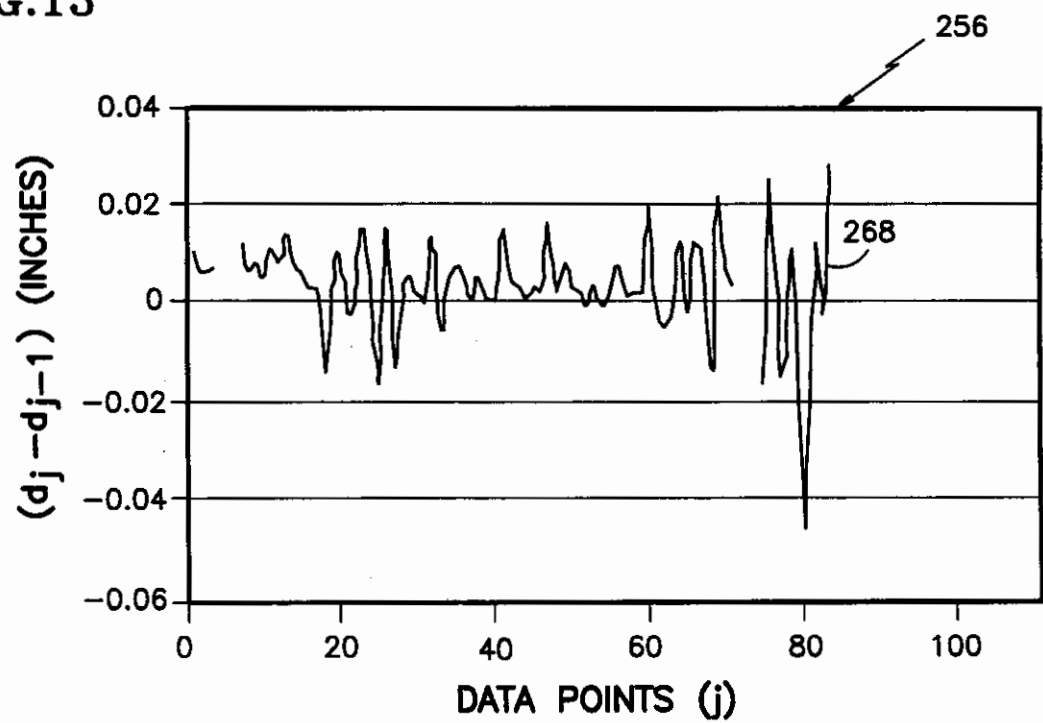
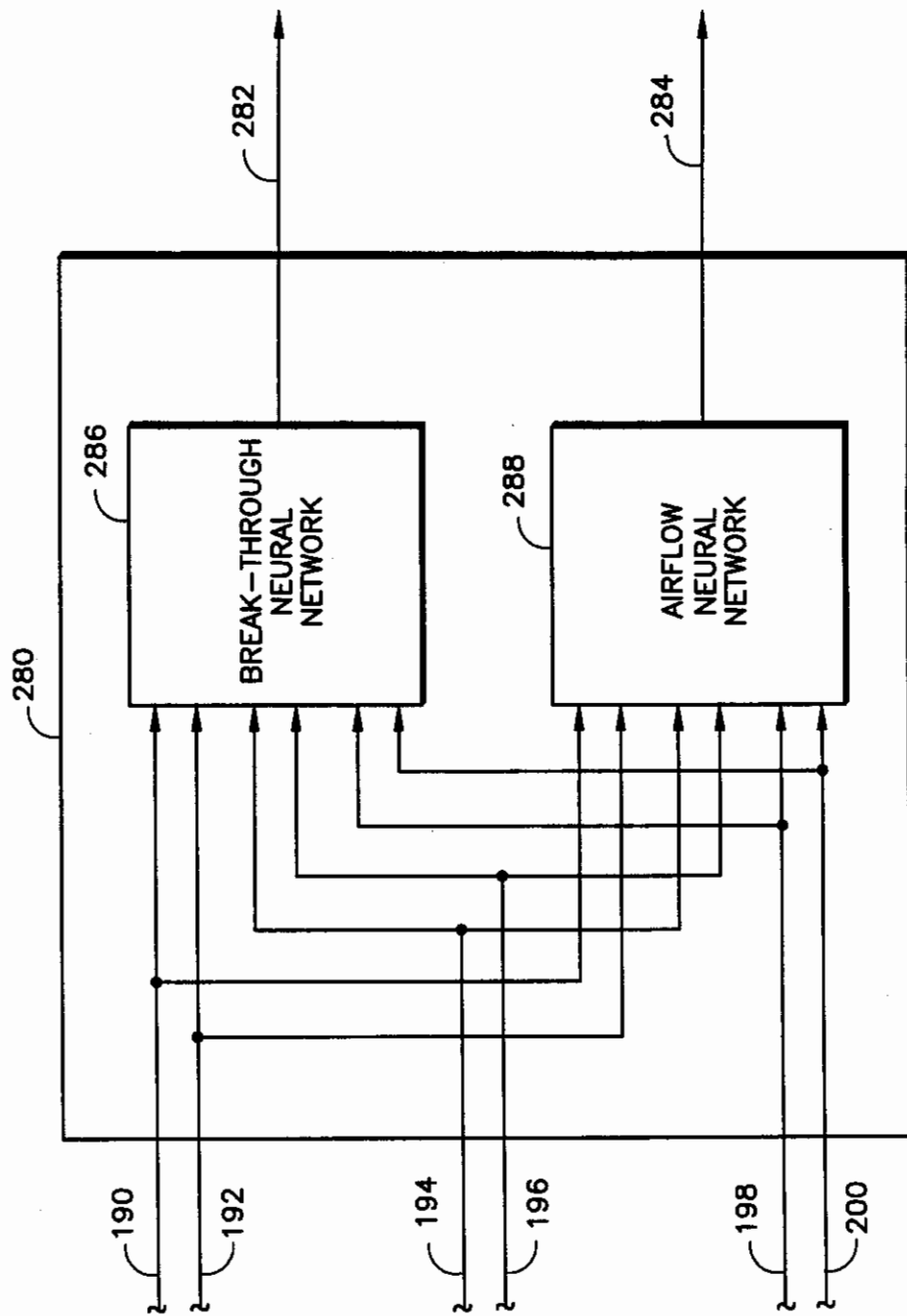


FIG.13



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FIG. 14A



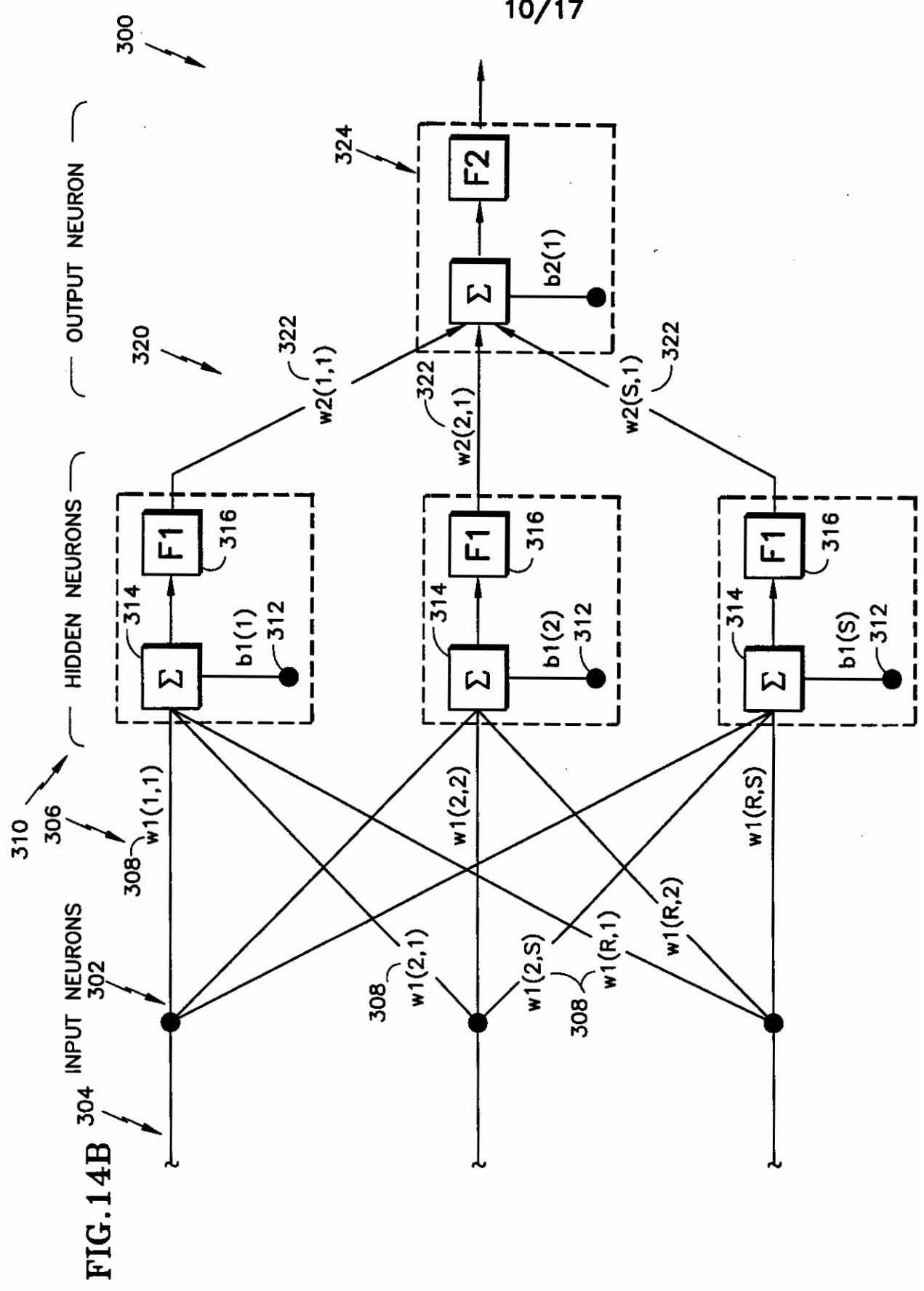
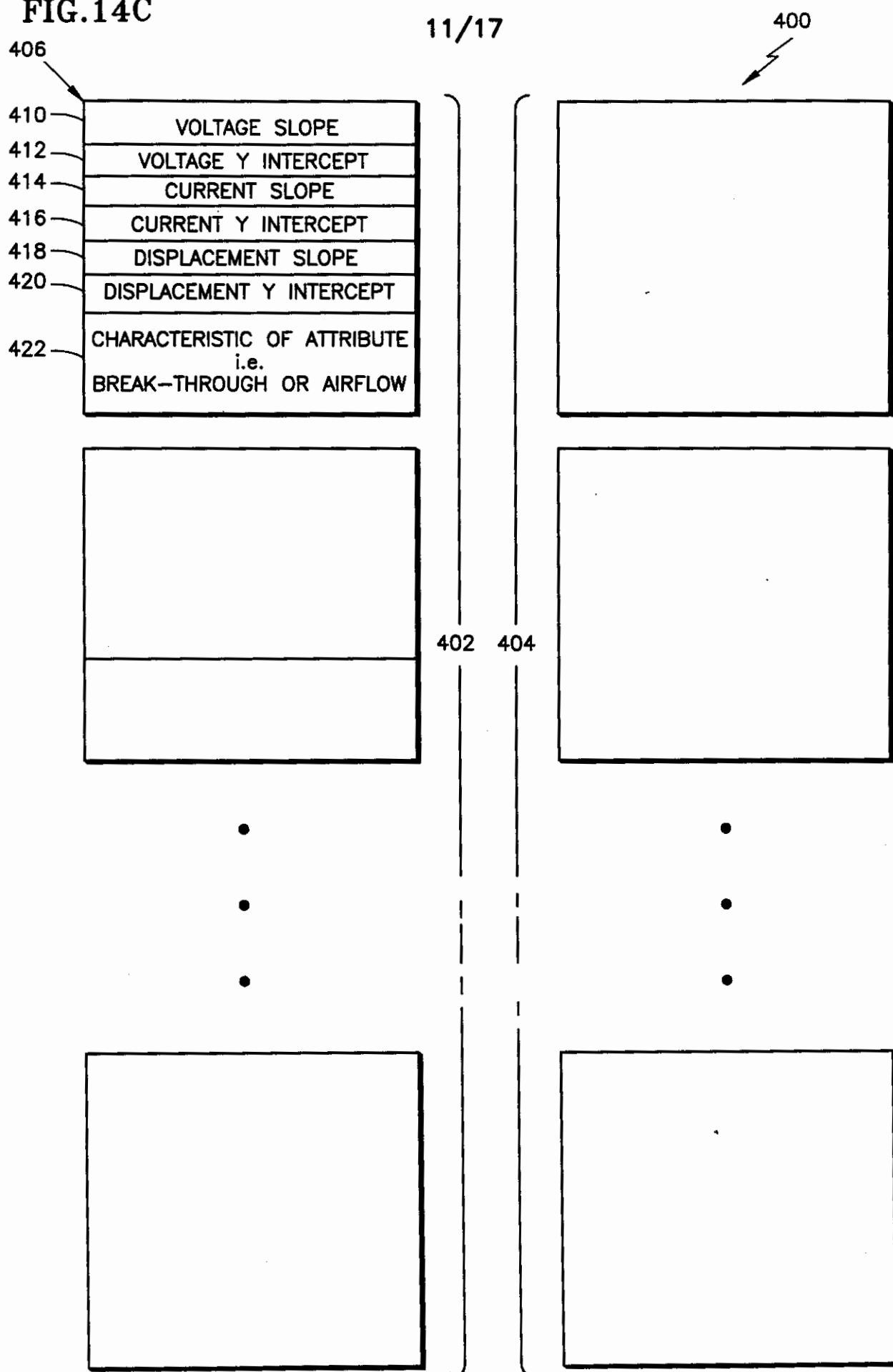


FIG.14C

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FIG.15

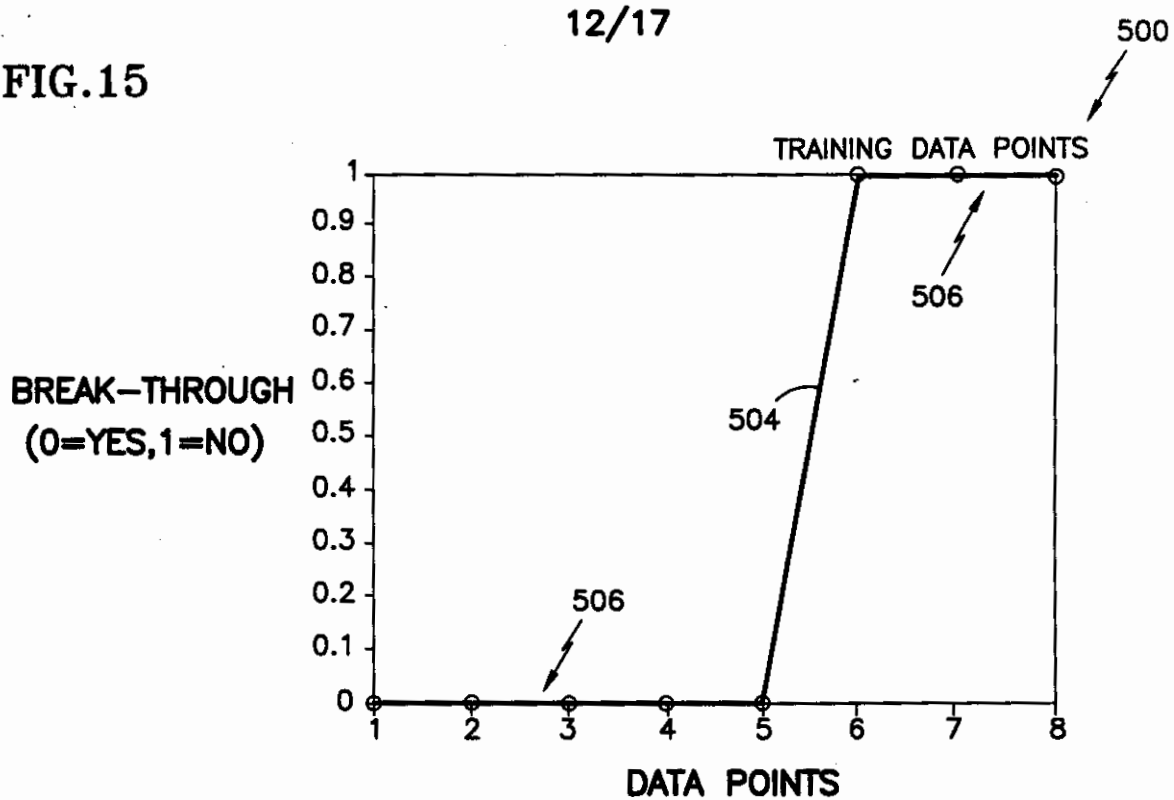
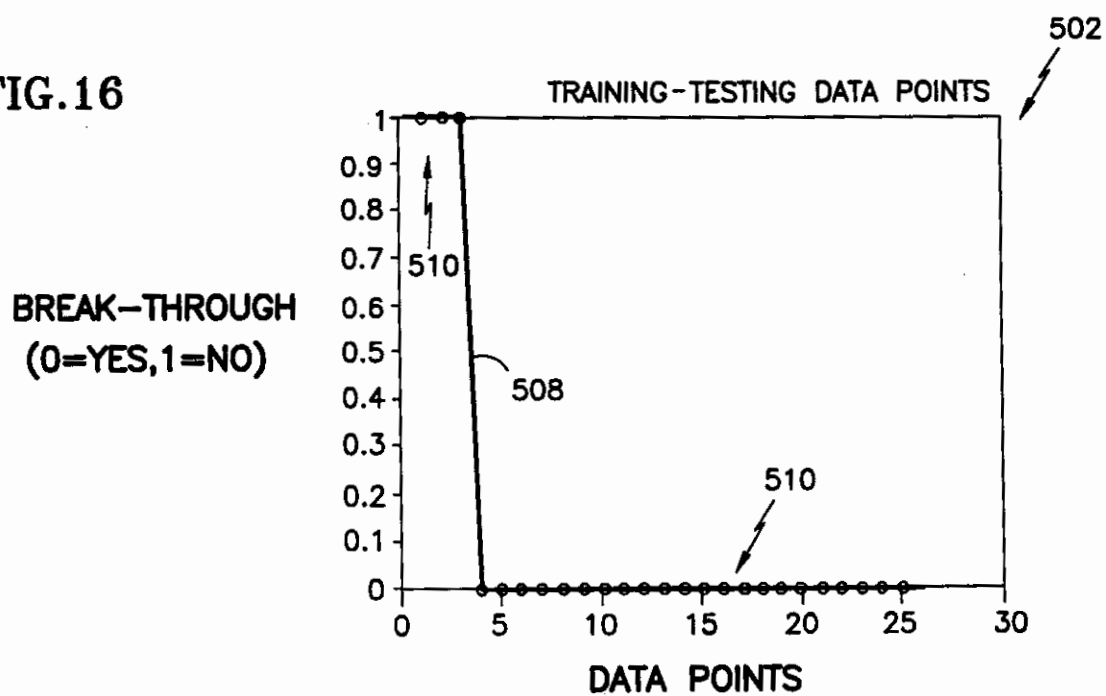


FIG.16



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FIG.17

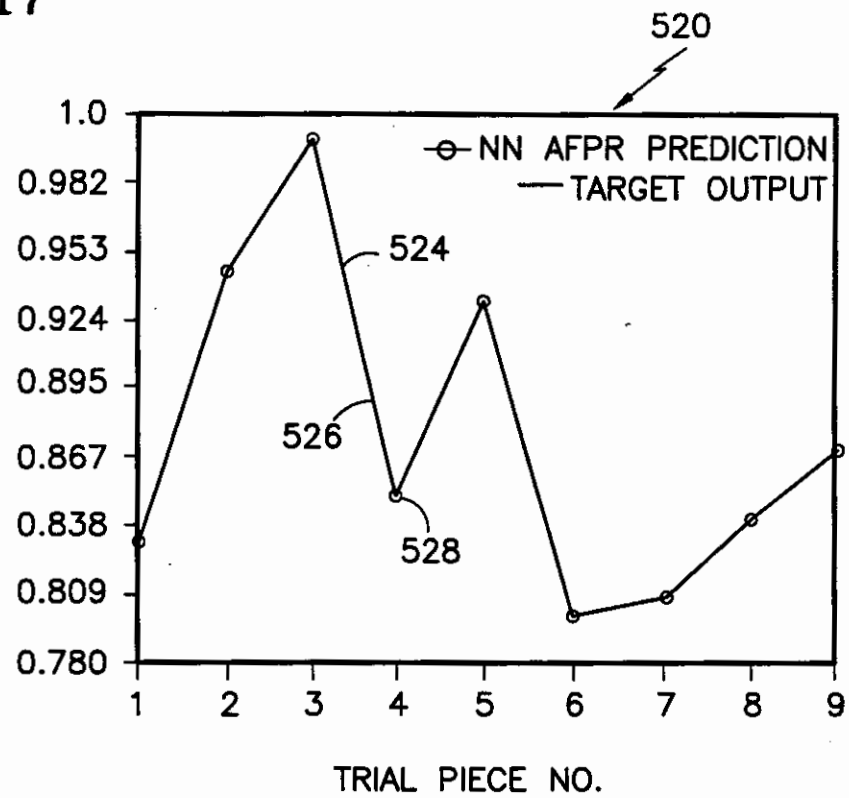


FIG.18

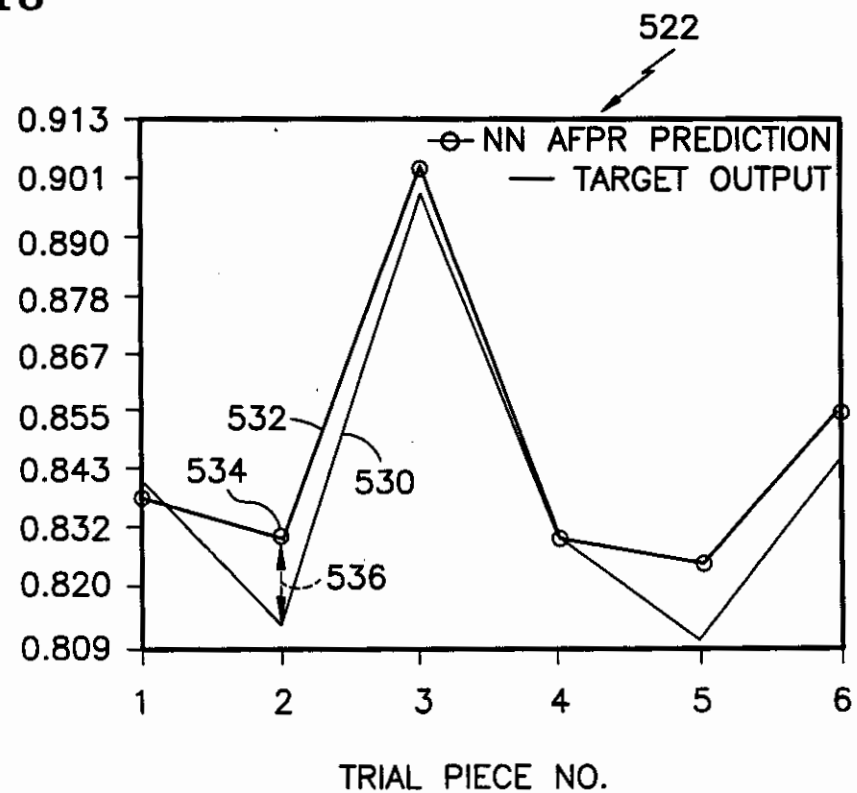


FIG.19

EDM BREAKTHROUGH PREDICTION WEIGHTS AND BIASES

INPUT SIGNAL $\longrightarrow$	VOLTAGE Y INT	VOLTAGE SLOPE	CURRENT Y INT	CURRENT SLOPE	DISPL Y INT	DISPLACEMENT SLOPE
INPUT NEURON # $\longrightarrow$	1	2	3	4	5	
1	-0.0001	-0.0012	-0.0332	-5.7628	-0.0013	-1.2566
2	-0.0001	-0.0025	0.0334	-5.2674	0.0207	0.1343
3	0.0001	-0.0044	0.0326	0.5215	0.0179	-1.1657
4	-0.0001	0.0040	-0.0139	-6.6266	0.0297	1.1612
5	0.0000	0.0033	0.0243	-7.7741	-0.0291	-0.9297
6	-0.0000	-0.0007	-0.0365	2.7832	0.0185	-1.7677
7	0.0001	0.0025	0.0045	3.5843	0.0116	-2.2288
8	-0.0001	-0.0033	-0.0180	-7.6906	-0.0114	1.3063
9	0.0000	-0.0033	0.0226	-0.9974	-0.0429	0.8776
10	-0.0002	0.0027	0.0023	-0.0800	-0.0207	0.3720
11	0.0001	0.0024	0.0238	2.3470	0.0357	1.3607
12	-0.0000	0.0052	0.0224	-2.0232	-0.0037	-1.6044
13	-0.0000	-0.0053	0.0041	-7.2360	-0.0201	-1.1531
14	-0.0001	-0.0009	-0.0302	6.4667	0.0282	-1.1248
15	-0.0001	-0.0052	0.0263	2.9174	-0.0015	1.1644
16	-0.0001	0.0037	-0.0181	3.3466	-0.0211	1.6322
17	-0.0001	0.0061	0.0200	-2.8162	0.0049	0.1092
18	-0.0001	0.0044	-0.0262	-0.7625	-0.0282	-1.0466
19	-0.0000	-0.0033	-0.0264	7.4991	-0.0244	1.1566
20	-0.0000	0.0017	-0.0360	-0.2297	-0.0420	-0.3673
HIDDEN NEURON #						
WEIGHTS FOR CONNECTING LINKS BETWEEN INPUT NEURONS AND HIDDEN NEURONS ALL VALUES X1E05						

FIG.20 552

HIDDEN NEURON #	BIAS
1	52.9335
2	-137.9412
3	-129.1566
4	-150.4878
5	132.2924
6	-64.9425
7	-61.5356
8	81.8292
9	204.6592
10	132.3393
11	-221.5166
12	1.6439
13	106.7256
14	-118.9520
15	-14.5449
16	137.1094
17	-32.5598
18	192.2944
19	161.9299
20	265.0316

FIG.22

OUTPUT NEURON = -2.0067 BIAS

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WEIGHTS FOR CONNECTING LINKS BETWEEN HIDDEN NEURONS AND OUTPUT NEURON

HIDDEN NEURON #	1	2	3	4	5	6	7
WEIGHT	-0.9685	-12.8214	-20.5104	-6.1053	-10.2833	-8.4954	17.2443

FIG.21

HIDDEN NEURON #	8	9	10	11	12	13	14
WEIGHT	21.7110	-12.6919	-6.0926	-4.5665	1.3445	-10.6911	-9.1677
HIDDEN NEURON #	15	16	17	18	19	20	
WEIGHT	-8.9969	2.7383	-6.6493	-2.8707	-0.0800	20.9008	

FIG.23

INPUTN SIGNAL →	VOLTAGE Y INT	VOLTAGE SLOPE	CURRENT Y INT	CURRENT SLOPE	DISPL Y INT	DISPLACEMENT SLOPE
INPUT NEURON # →	1	2	3	4	5	6
1	-0.0000	-0.0006	0.0103	-1.4434	-0.0089	0.1343
2	-0.0000	-0.0012	0.0033	0.3665	-0.0136	-0.1989
3	0.0000	0.0012	0.0009	-1.0057	-0.0120	0.2389
4	0.0000	0.0010	0.0130	-0.0341	0.0079	-0.2808
5	-0.0000	-0.0005	-0.0213	0.5790	-0.0076	-0.0592
6	0.0000	0.0007	0.0044	-1.0324	0.0013	-0.2945
7	0.0000	0.0018	-0.0096	0.2821	0.0025	-0.1829
8	0.0000	0.0007	0.0142	0.9400	0.0021	-0.2543
9	0.0000	-0.0000	0.0155	-0.8179	-0.0025	-0.2240
10	0.0000	0.0014	0.0147	-1.1639	0.0053	0.1703
11	-0.0000	0.0021	-0.0028	-1.6061	0.0033	0.0458
12	0.0000	-0.0008	-0.0094	0.2255	-0.0100	-0.2918
13	-0.0000	0.0005	0.0140	-0.7872	-0.0095	0.0675
14	0.0000	-0.0001	-0.0179	0.0577	-0.0007	0.2350
15	-0.0000	-0.0017	-0.0128	-0.2837	-0.0043	-0.2231
16	0.0000	-0.0014	-0.0133	0.4840	-0.0042	0.0412
17	0.0000	0.0002	-0.0118	-1.2211	-0.0063	0.2332
18	0.0000	0.0002	0.0005	0.0643	0.0157	-0.2380
19	0.0000	0.0018	0.0126	-0.9199	0.0080	-0.0383
20	0.0000	0.0002	0.0007	-2.4707	-0.0025	0.1828

HIDDEN
NEURON
#

WEIGHTS FOR CONNECTING LINKS BETWEEN
INPUT NEURONS AND HIDDEN NEURONS

ALL VALUES
X1E05

FIG.24

HIDDEN NEURON #	BIAS
1	40.7269
2	72.2149
3	64.0912
4	-55.2903
5	62.2397
6	-12.2280
7	-5.0355
8	-26.4862
9	-3.5486
10	-45.6716
11	-16.0159
12	63.3863
13	41.7314
14	17.5374
15	36.7556
16	33.6450
17	42.8667
18	-88.0130
19	-55.5566
20	9.7254

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FIG.26

OUTPUT HEURON = 0.5701 BIAS

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WEIGHTS FOR CONNECTING LINKS BETWEEN
HIDDEN NEURONS AND OUTPUT NEURON

HIDDEN NEURON #	1	2	3	4	5	6	7
WEIGHT	0.3253	-0.5985	0.5225	0.7058	0.2002	-0.3900	0.6962

FIG.25

HIDDEN NEURON #	8	9	10	11	12	13	14
WEIGHT	0.1927	0.4754	0.3328	-0.7447	-0.6543	0.2910	-0.1286

HIDDEN NEURON #	15	16	17	18	19	20
WEIGHT	1.3641	0.6087	-0.4287	-0.0798	0.1466	0.4420