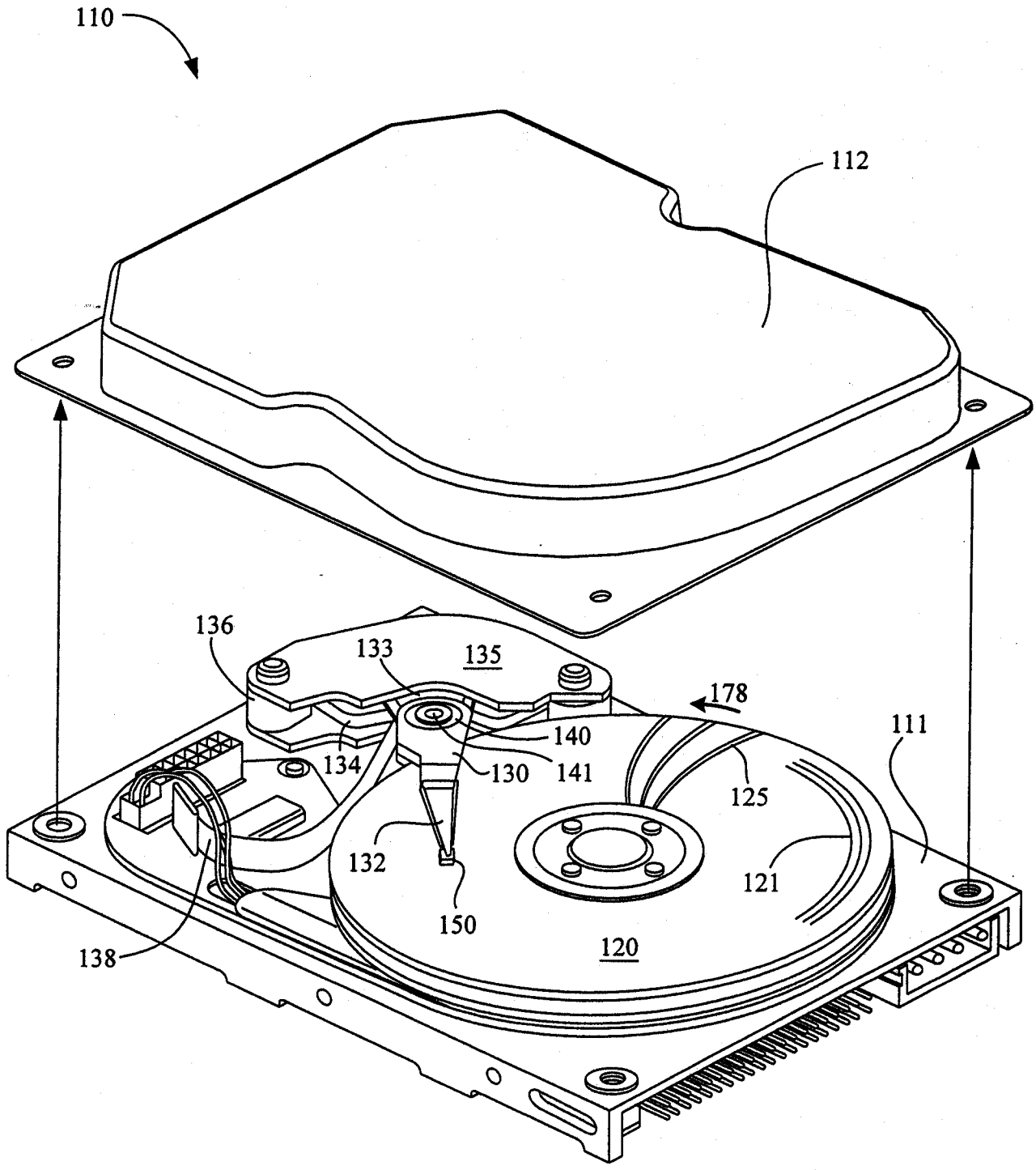

110
112
136
133
135
178
140
134
130
141
111
125
132
121
150
120
138

Fig. 1

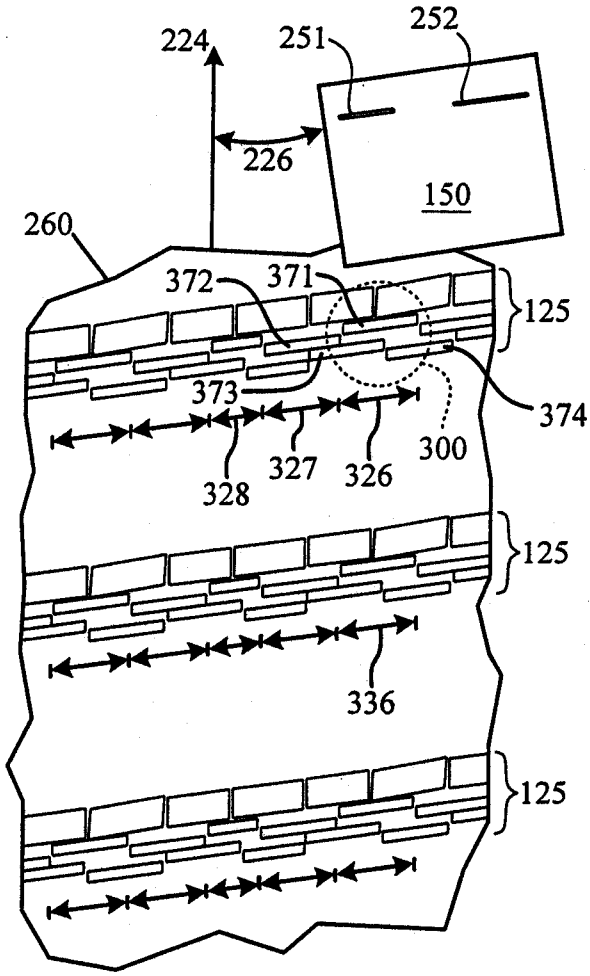


Fig. 2

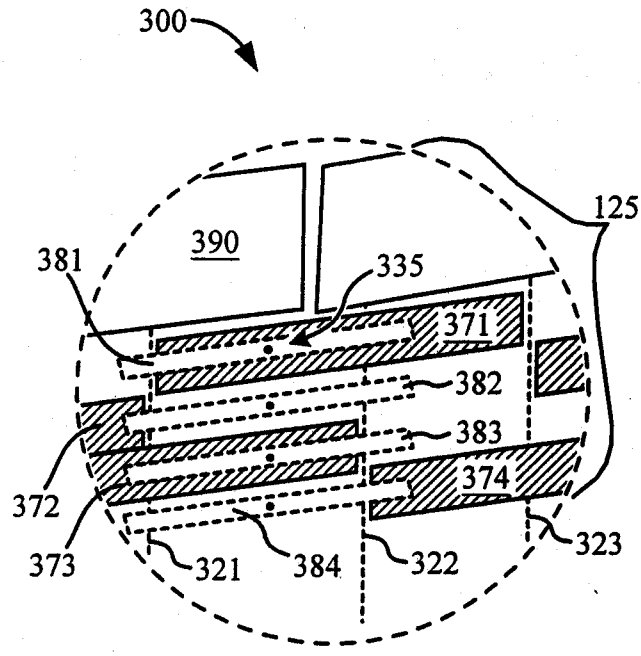
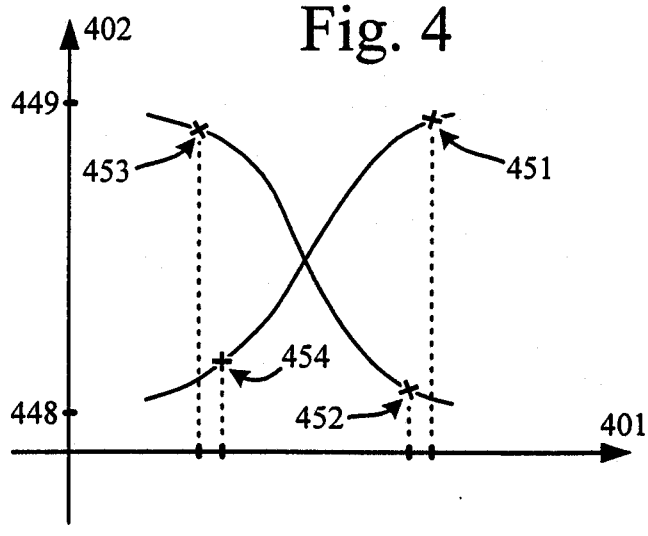


Fig. 3

Fig. 4



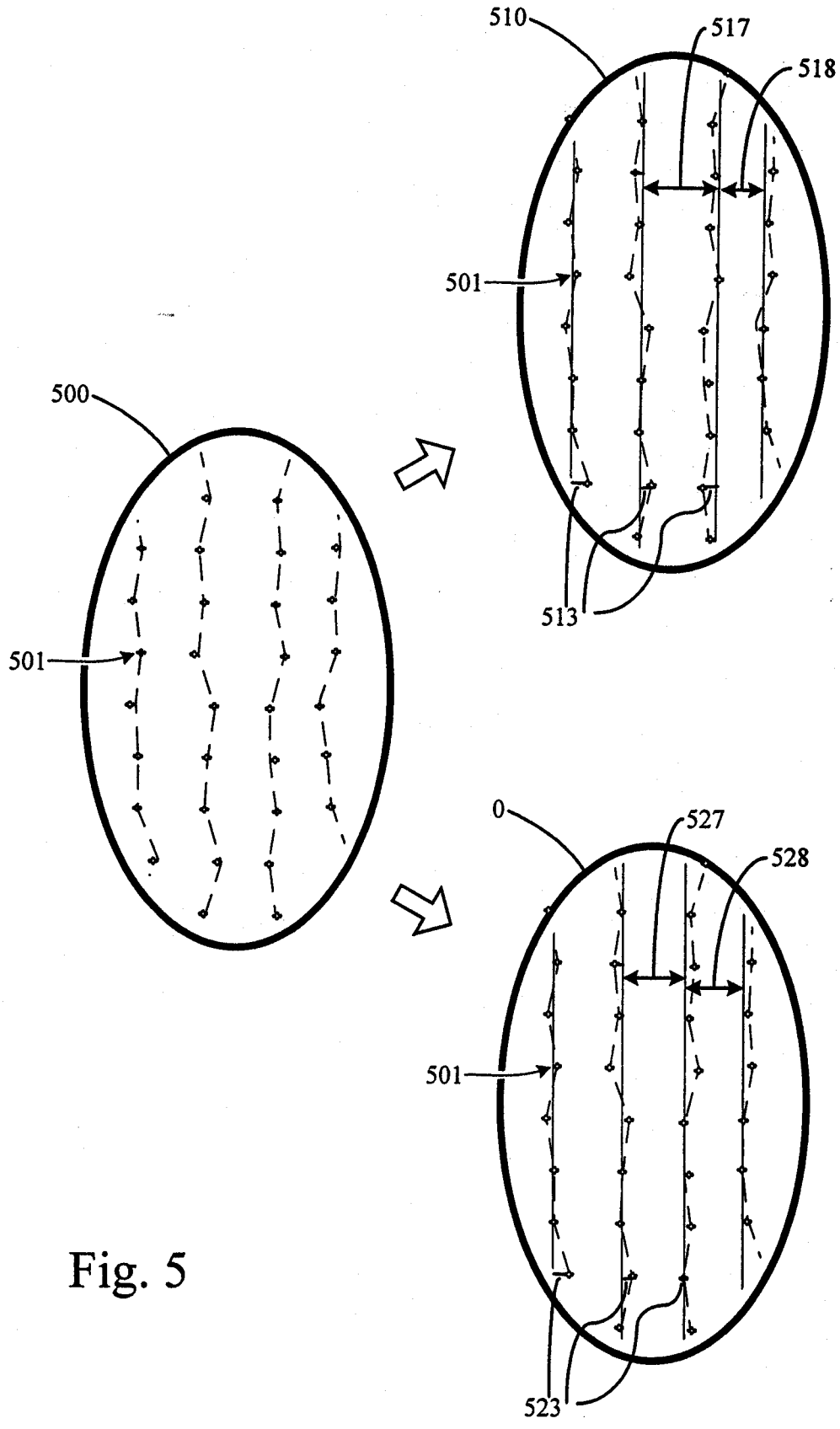


Fig. 5

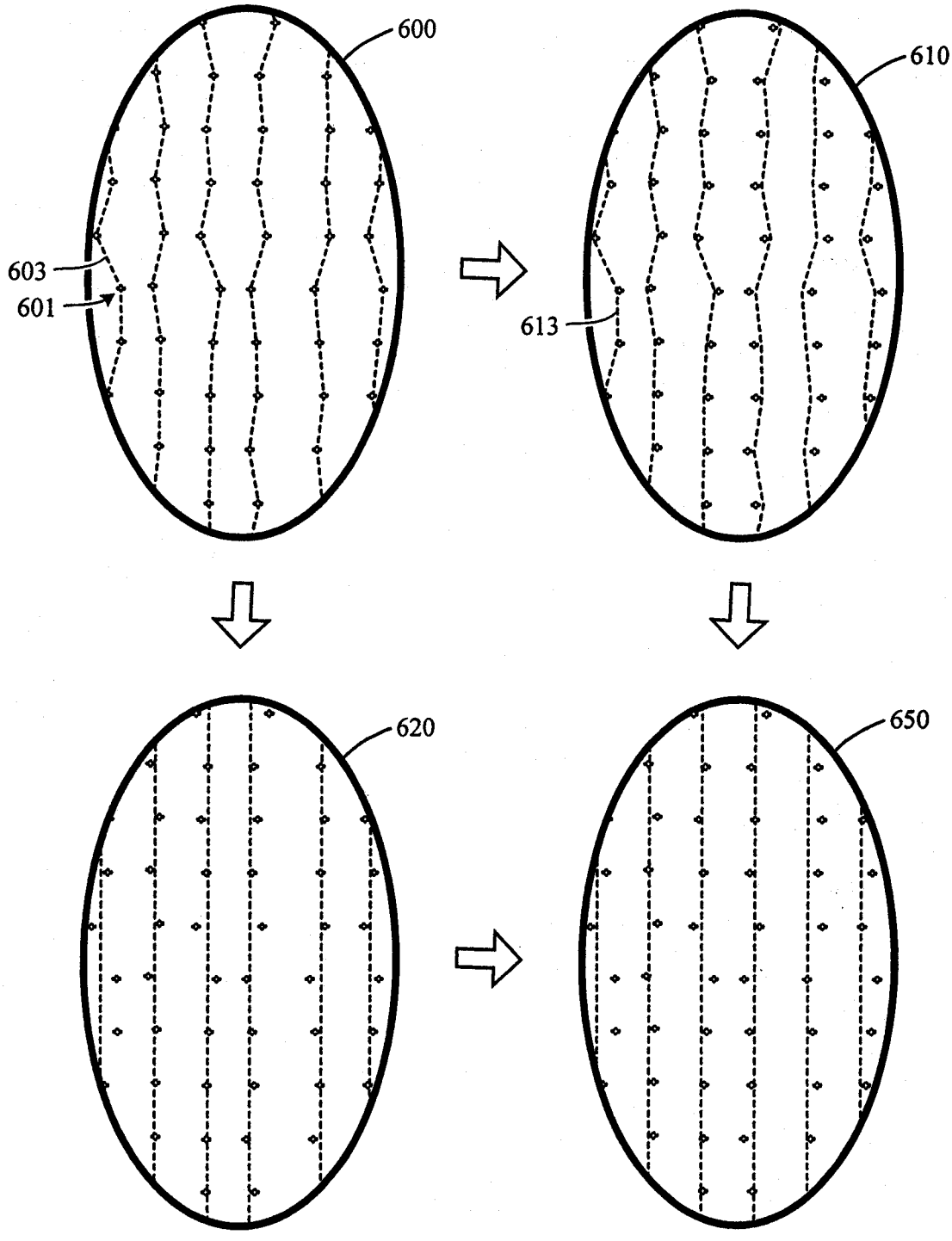


Fig. 6

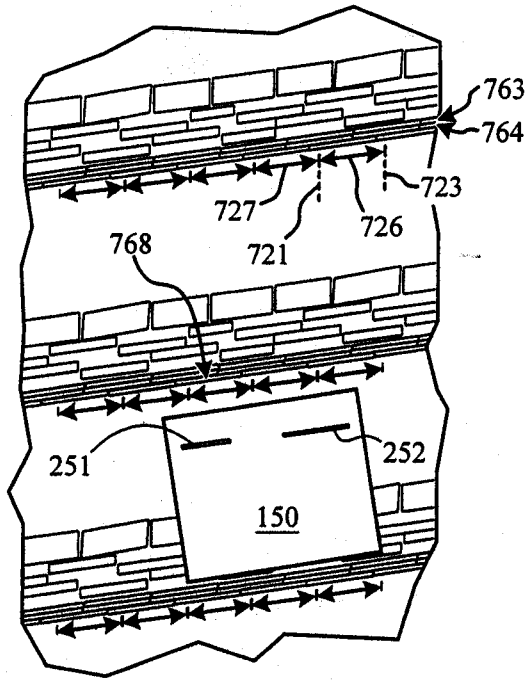


Fig. 7

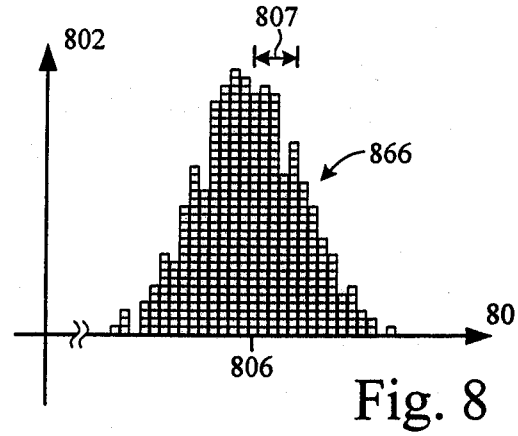


Fig. 8

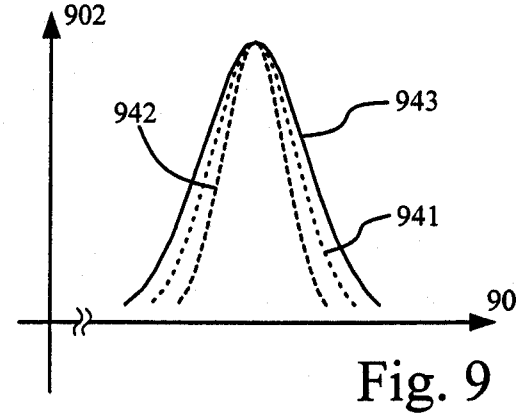


Fig. 9

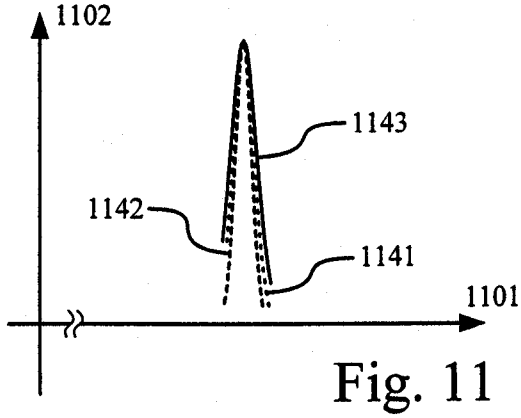


Fig. 11

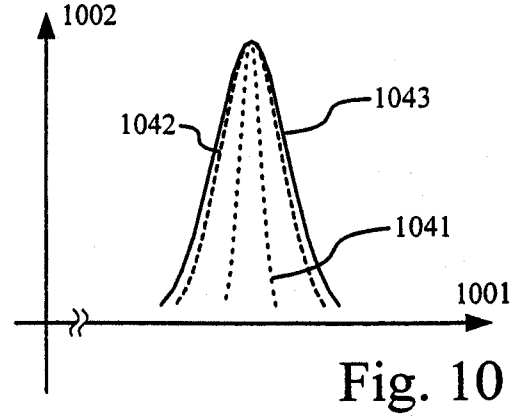


Fig. 10

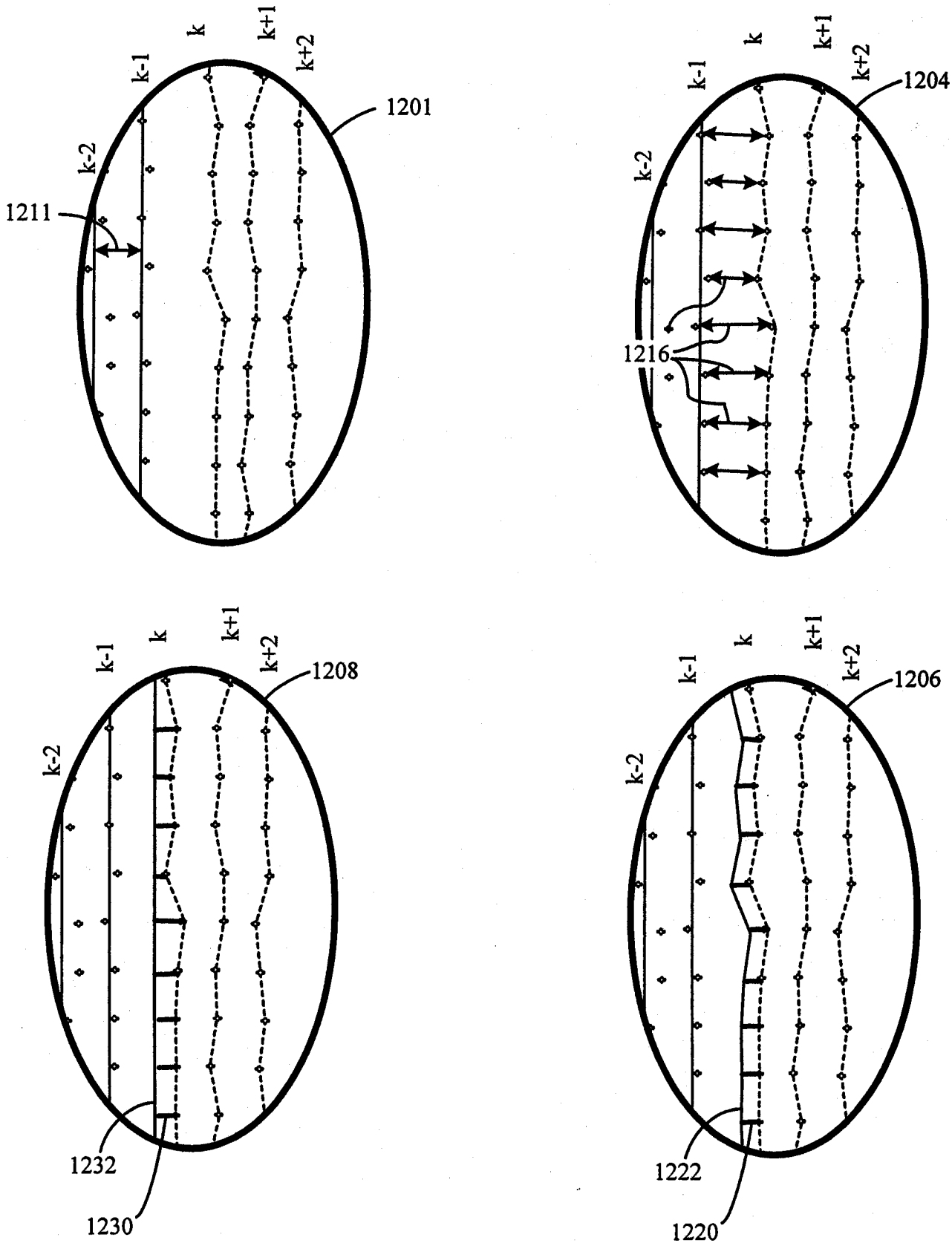


Fig. 12

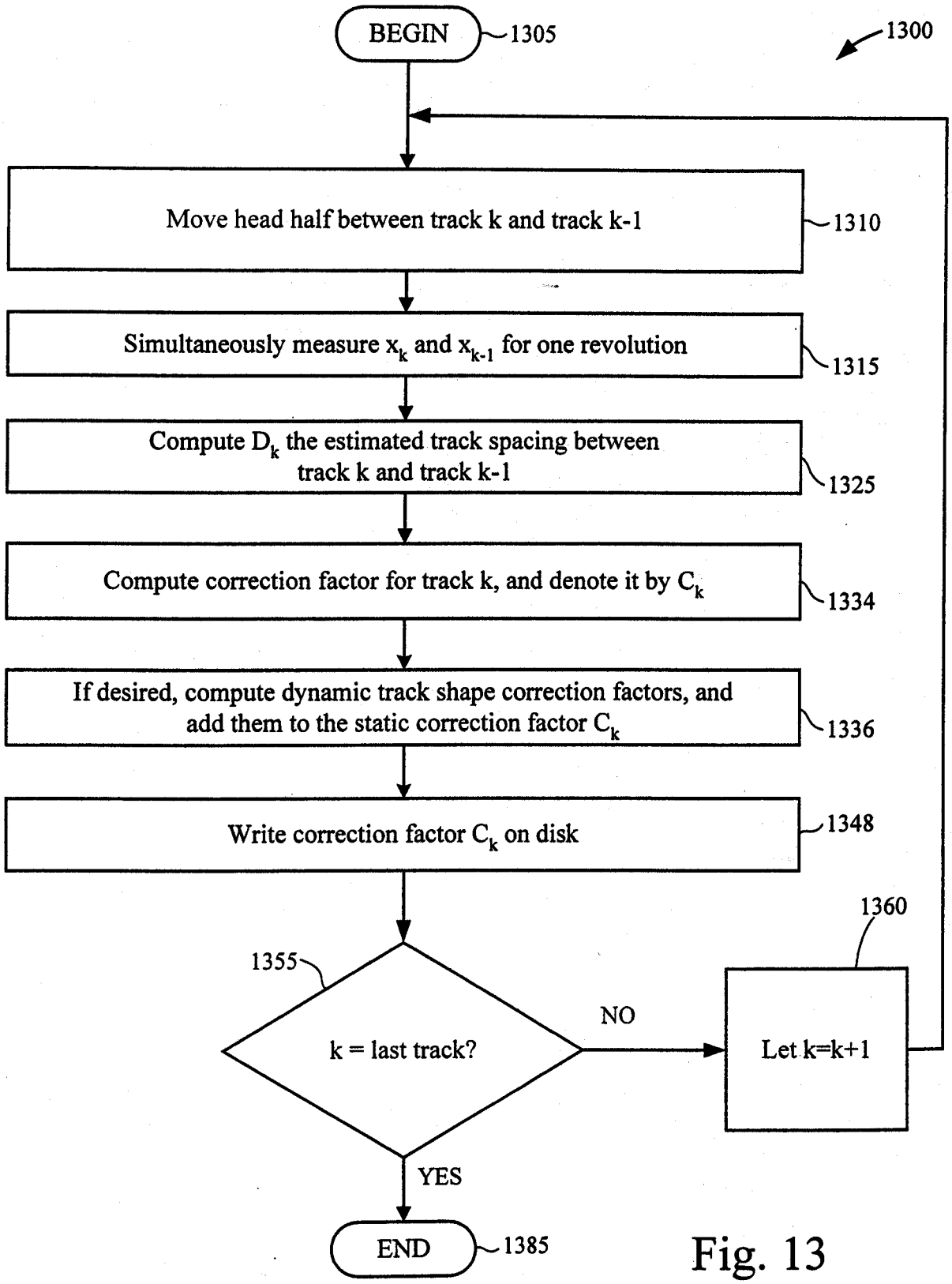
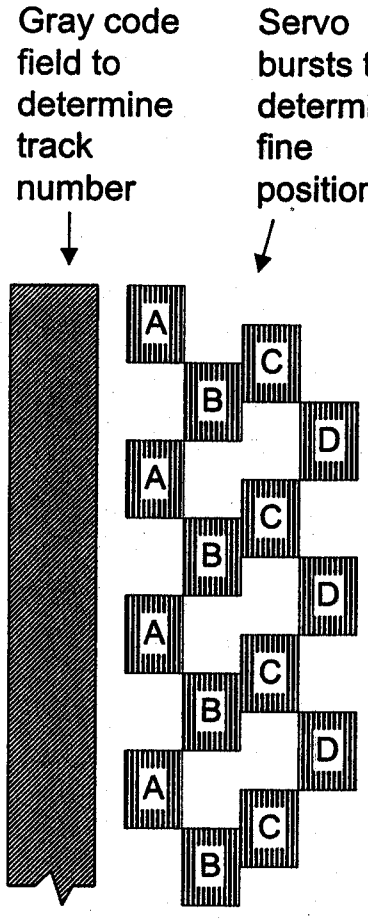

BEGIN
1305
1300
Move head half between track k and track k-1
1310
Simultaneously measure x_k and x_{k-1} for one revolution
1315
Compute D_k the estimated track spacing between track k and track k-1
1325
Compute correction factor for track k, and denote it by C_k
1334
If desired, compute dynamic track shape correction factors, and add them to the static correction factor C_k
1336
Write correction factor C_k on disk
1348
1355
k = last track?
NO
1360
Let k=k+1
YES
END
1385

Fig. 13



Track number	Quad-rant (Q)	Over burst	Raw Measured Position (m, units of tracks)
0	1	C	(A-B)/(A+B)
1	2	B	(C-D)/(C+D) + 1
2	3	D	(B-A)/(A+B) + 2
3	4	A	(D-C)/(C+D) + 3
4	1	C	(A-B)/(A+B) + 4
5	2	B	(C-D)/(C+D) + 5
6	3	D	(B-A)/(A+B) + 6
7	4	A	(D-C)/(C+D) + 7
8	1	C	(A-B)/(A+B) + 8
9	2	B	(C-D)/(C+D) + 9
10	3	D	(B-A)/(A+B) + 10
11	4	A	(D-C)/(C+D) + 11
12	1	C	(A-B)/(A+B) + 12
...	...	...	...
...	...	...	...

Fig. 14

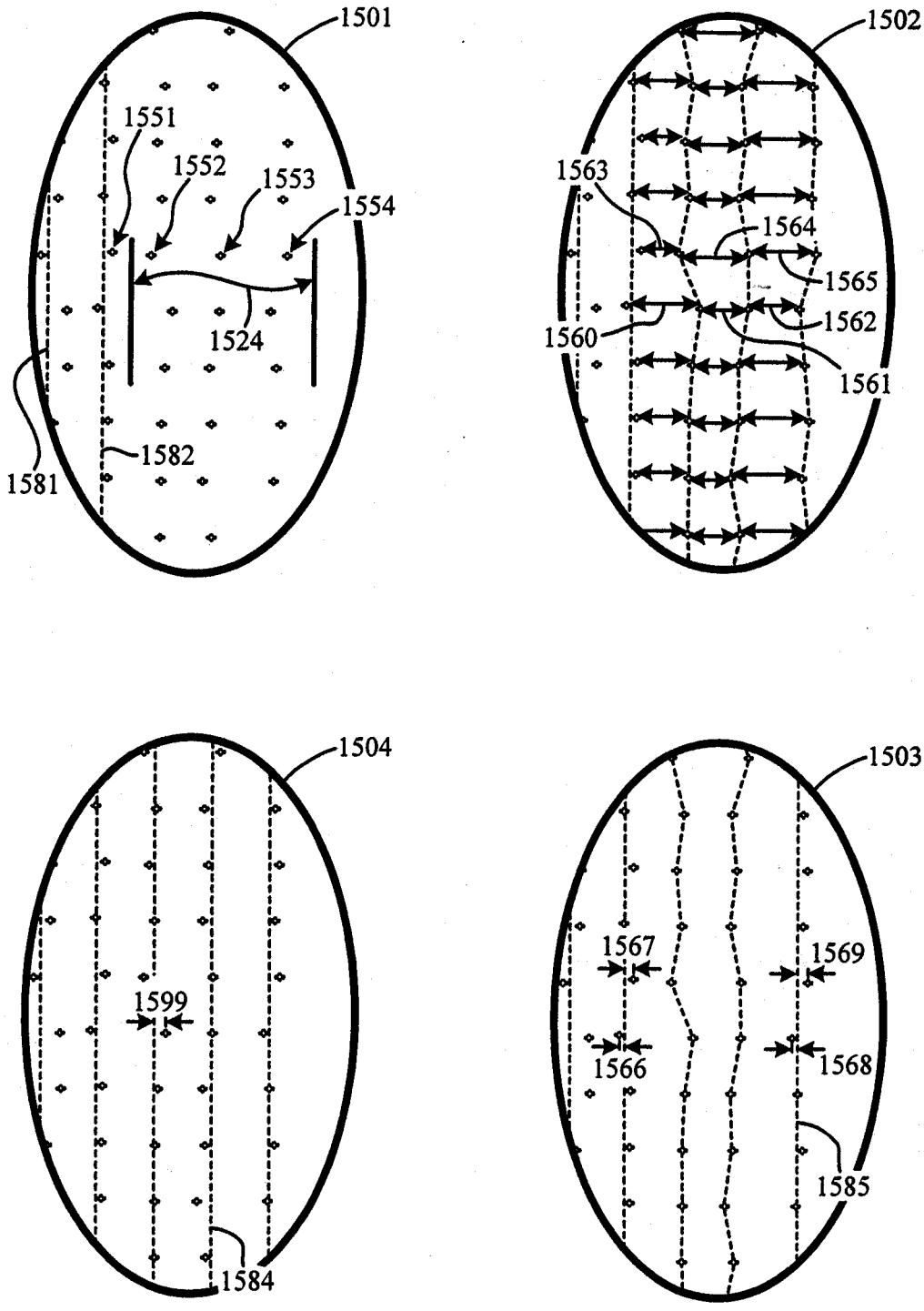

1501
1551
1552
1553
1554
1524
1582
1581
1502
1563
1564
1565
1562
1560
1561
1504
1599
1584
1503
1567
1569
1566
1568
1585

Fig. 15

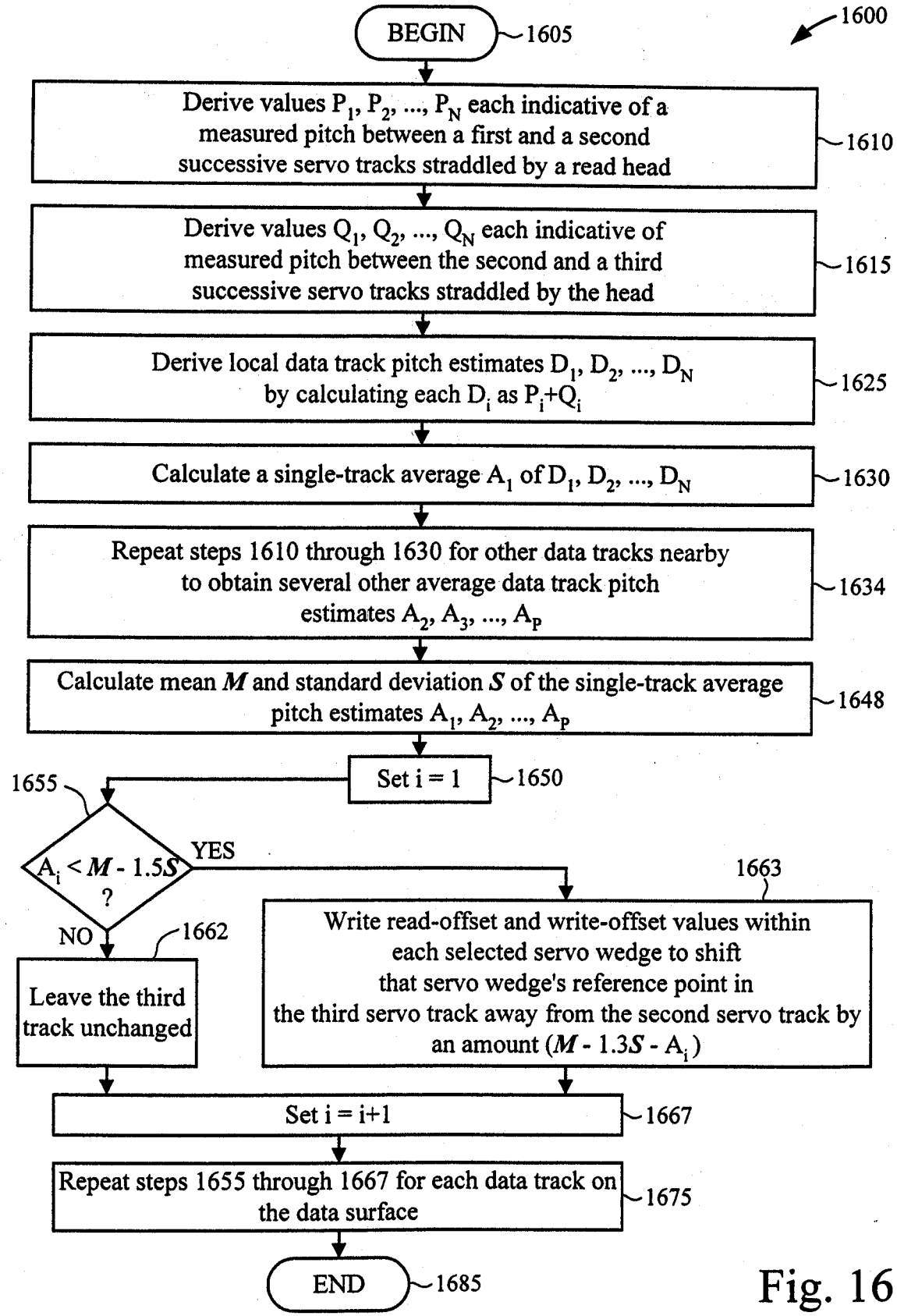

1600
BEGIN
1605
Derive values P_1, P_2, ..., P_N each indicative of a measured pitch between a first and a second successive servo tracks straddled by a read head
1610
Derive values Q_1, Q_2, ..., Q_N each indicative of measured pitch between the second and a third successive servo tracks straddled by the head
1615
Derive local data track pitch estimates D_1, D_2, ..., D_N by calculating each D_i as P_i+Q_i
1625
Calculate a single-track average A_1 of D_1, D_2, ..., D_N
1630
Repeat steps 1610 through 1630 for other data tracks nearby to obtain several other average data track pitch estimates A_2, A_3, ..., A_P
1634
Calculate mean M and standard deviation S of the single-track average pitch estimates A_1, A_2, ..., A_P
1648
Set i = 1
1650
1655
$A_i < M - 1.5S$?
YES
NO
1662
Leave the third track unchanged
1663
Write read-offset and write-offset values within each selected servo wedge to shift that servo wedge's reference point in the third servo track away from the second servo track by an amount ($M - 1.3S - A_i$)
Set i = i+1
1667
Repeat steps 1655 through 1667 for each data track on the data surface
1675
END
1685

Fig. 16

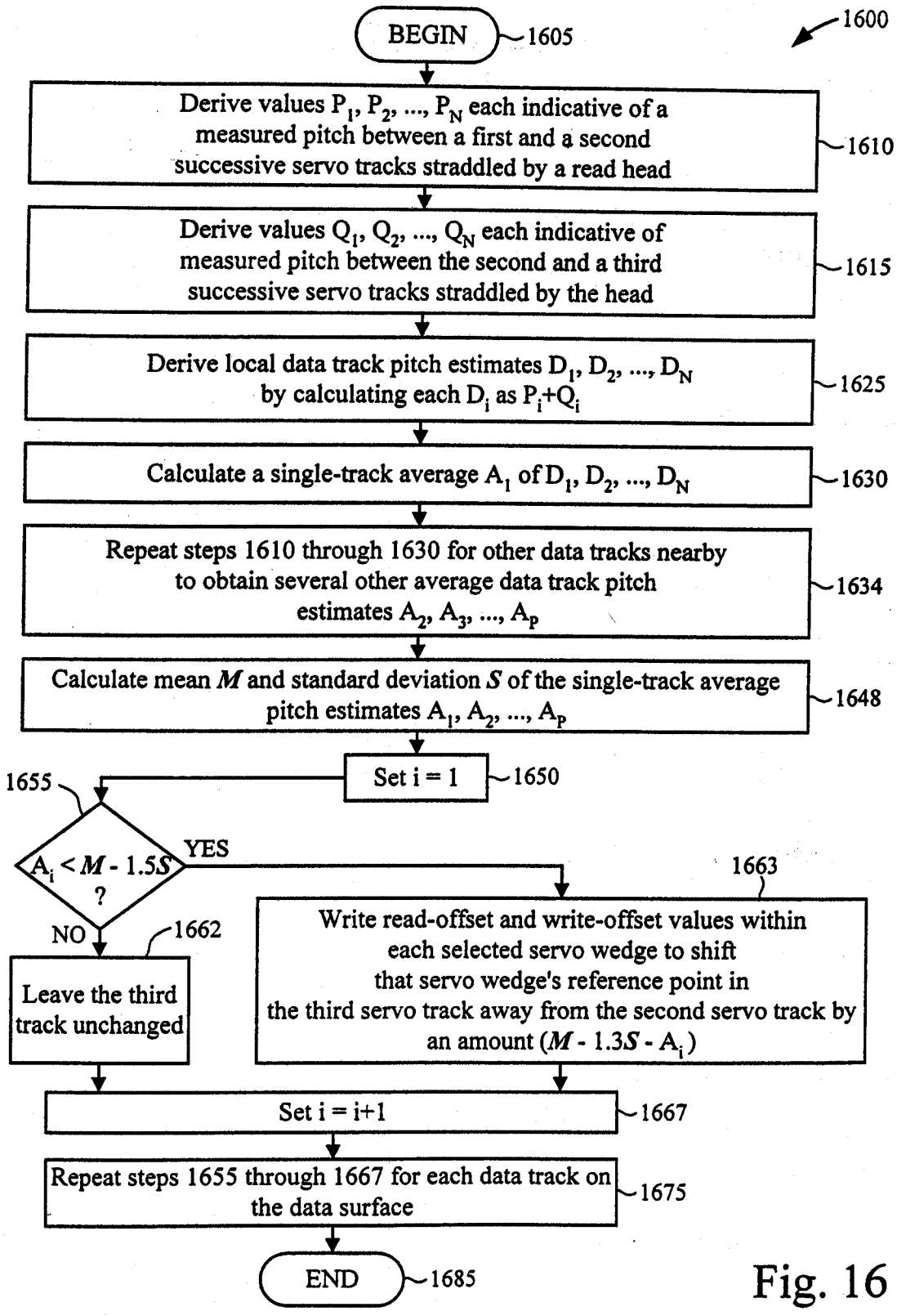

BEGIN
1605
1600
Derive values $P_1, P_2, ..., P_N$ each indicative of a measured pitch between a first and a second successive servo tracks straddled by a read head
1610
Derive values $Q_1, Q_2, ..., Q_N$ each indicative of measured pitch between the second and a third successive servo tracks straddled by the head
1615
Derive local data track pitch estimates $D_1, D_2, ..., D_N$ by calculating each D_i as P_i+Q_i
1625
Calculate a single-track average A_1 of $D_1, D_2, ..., D_N$
1630
Repeat steps 1610 through 1630 for other data tracks nearby to obtain several other average data track pitch estimates $A_2, A_3, ..., A_P$
1634
Calculate mean M and standard deviation S of the single-track average pitch estimates $A_1, A_2, ..., A_P$
1648
Set i = 1
1650
1655
$A_i < M - 1.5S$?
YES
NO
1662
1663
Leave the third track unchanged
Write read-offset and write-offset values within each selected servo wedge to shift that servo wedge's reference point in the third servo track away from the second servo track by an amount $(M - 1.3S - A_i)$
Set i = i+1
1667
Repeat steps 1655 through 1667 for each data track on the data surface
1675
END
1685

Fig. 16