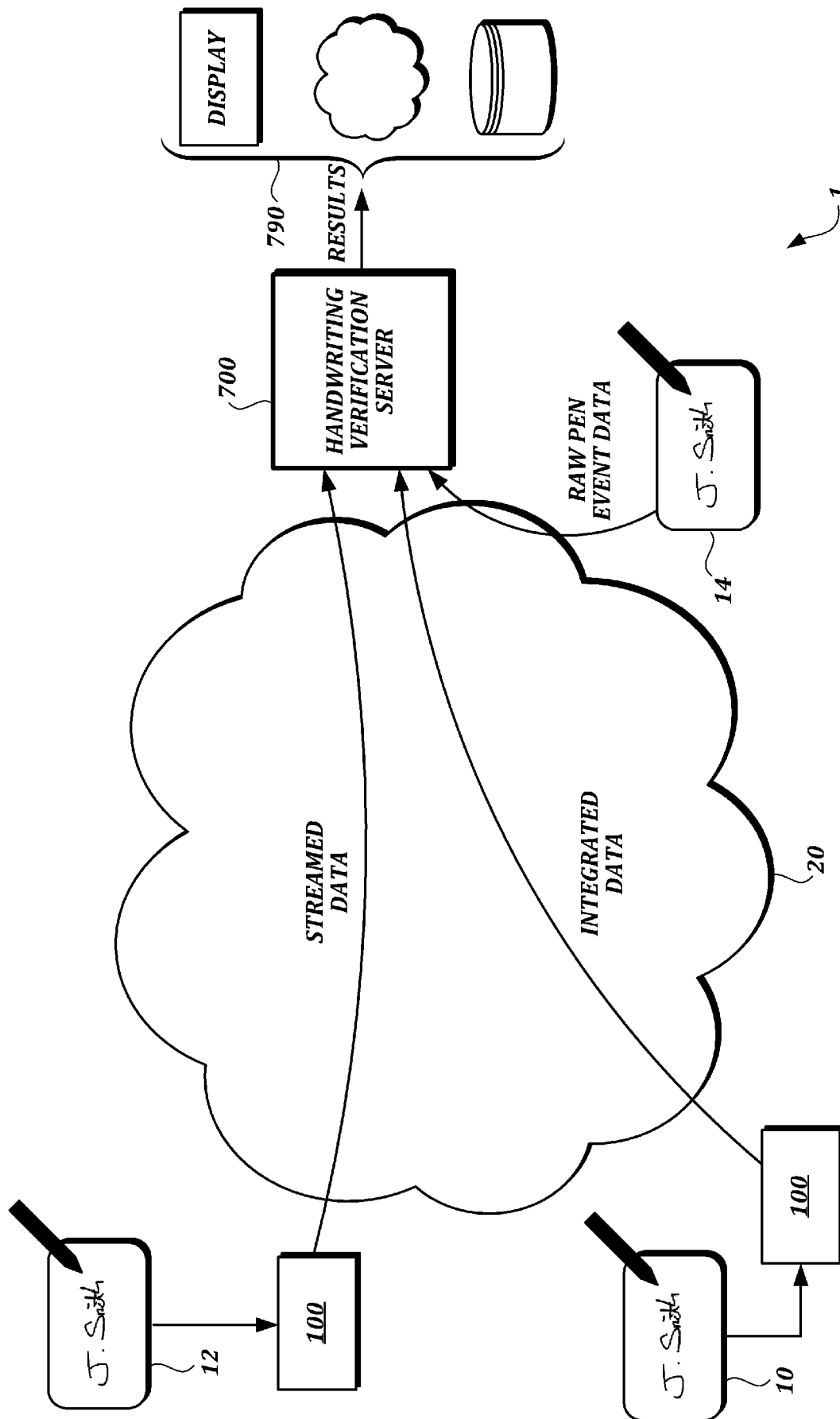
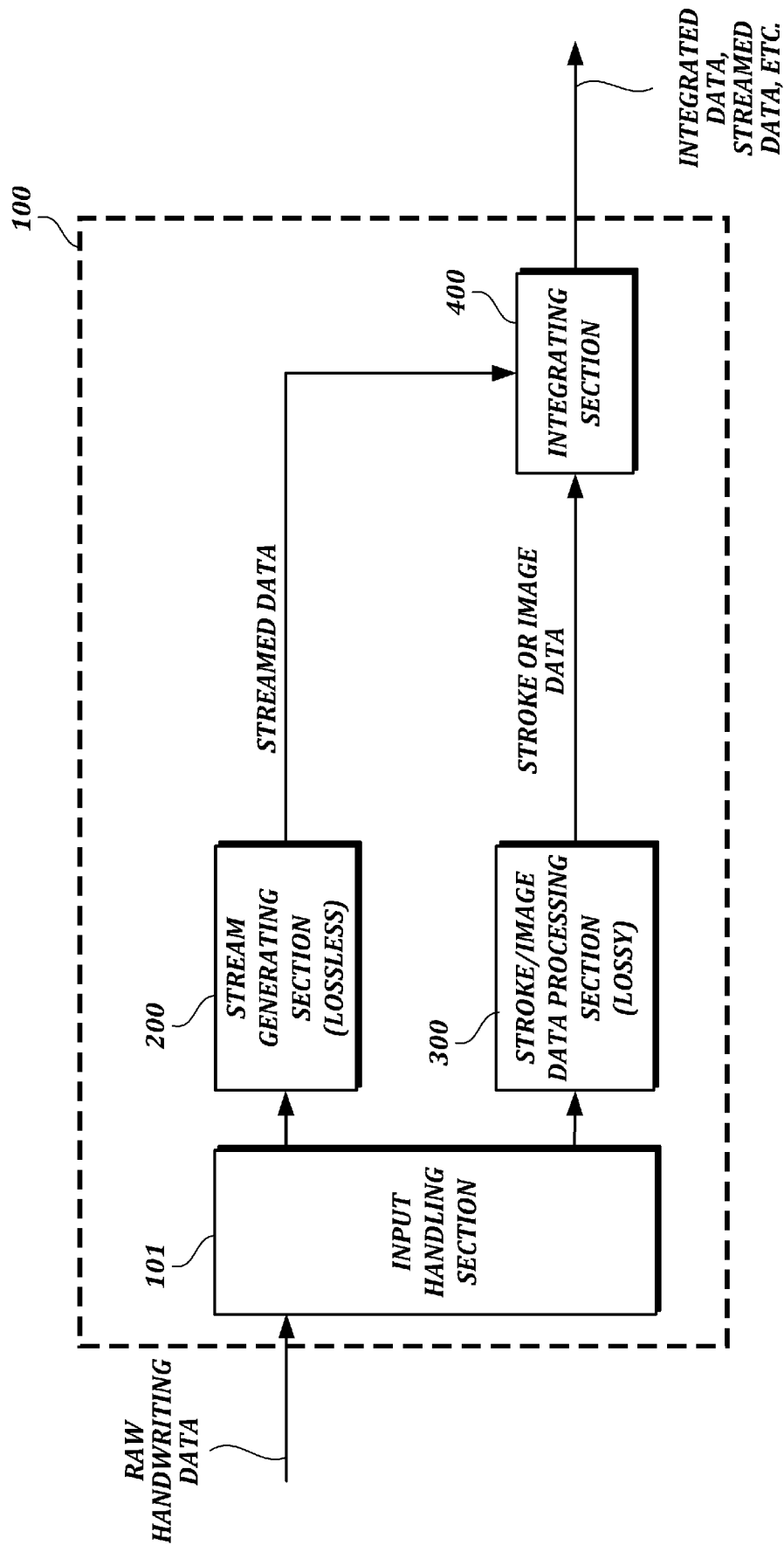


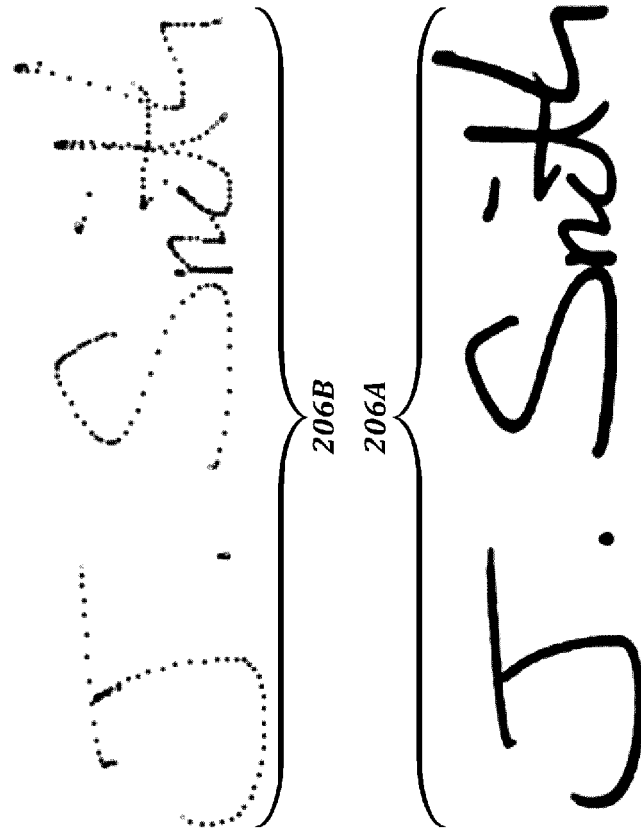
[Fig. 1A]

**FIG.1A.**

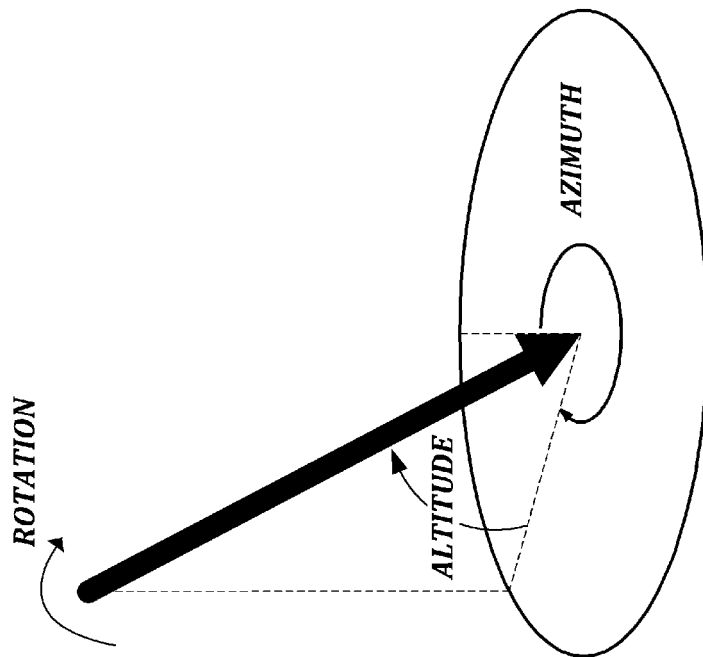
[Fig. 1B]

**FIG.1B.**

[Fig. 2A]

**FIG. 2A.**

[Fig. 2B]

**FIG. 2B.**

[Fig. 2C]

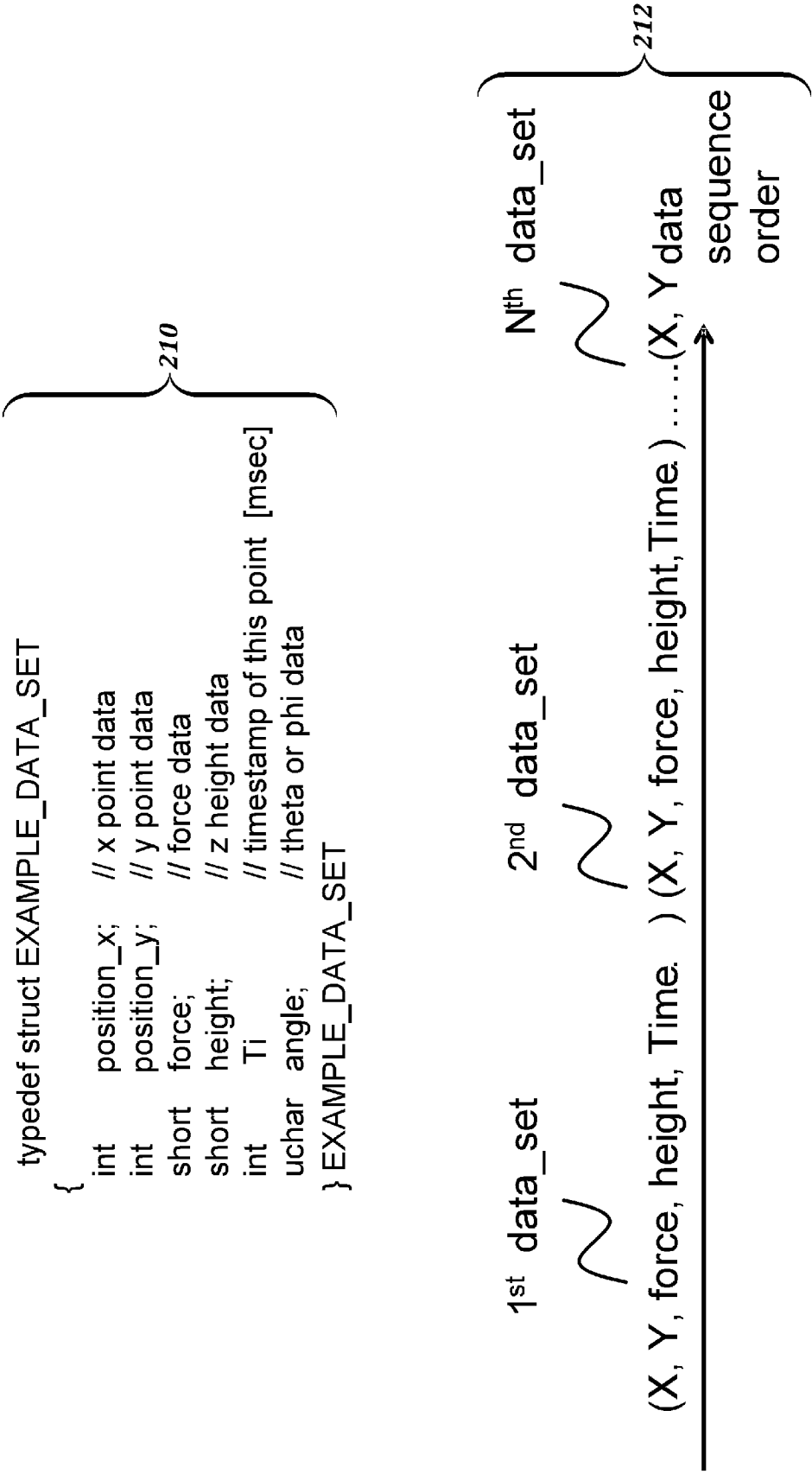
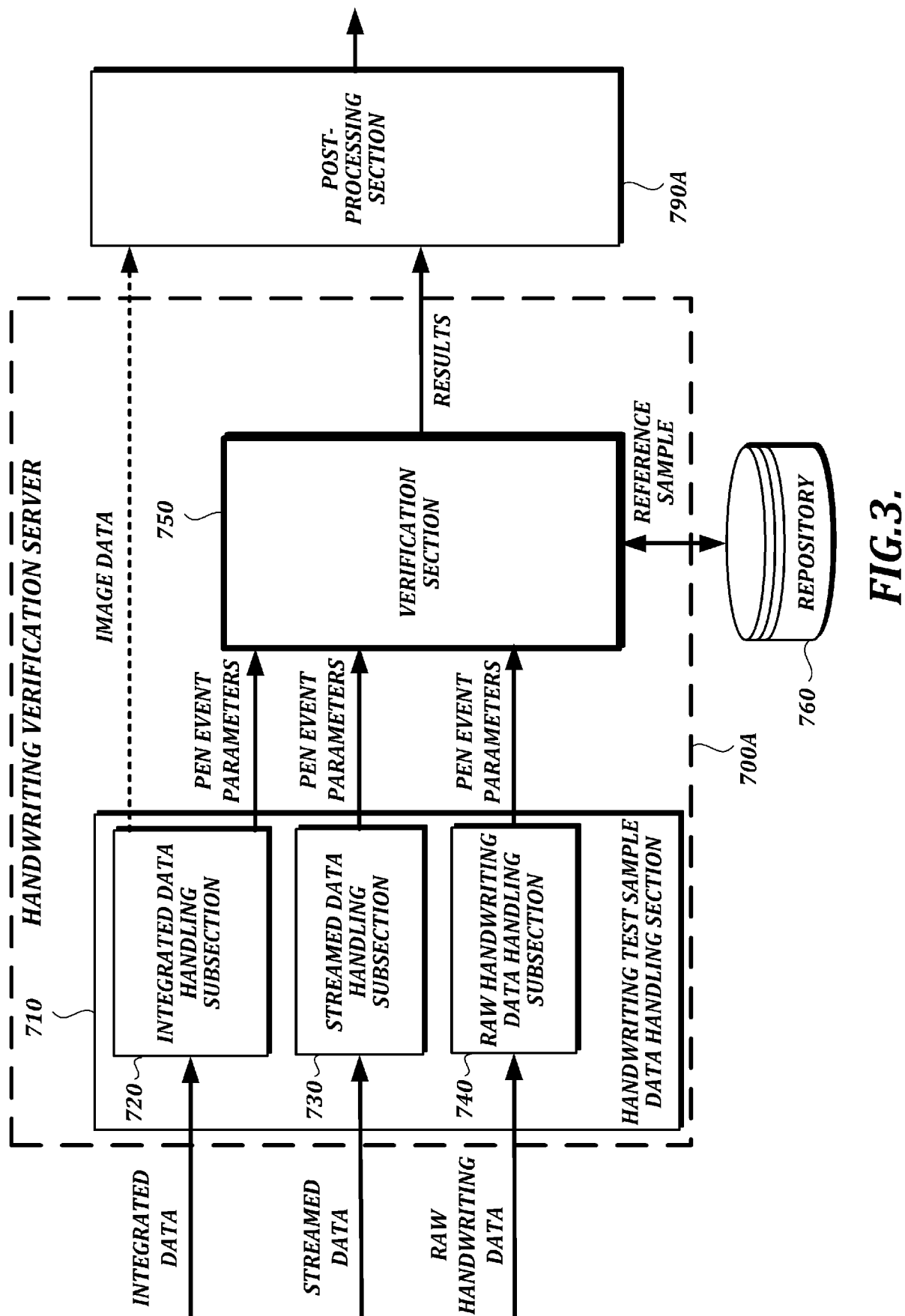


FIG.2C.

[Fig. 3]



[Fig. 4]

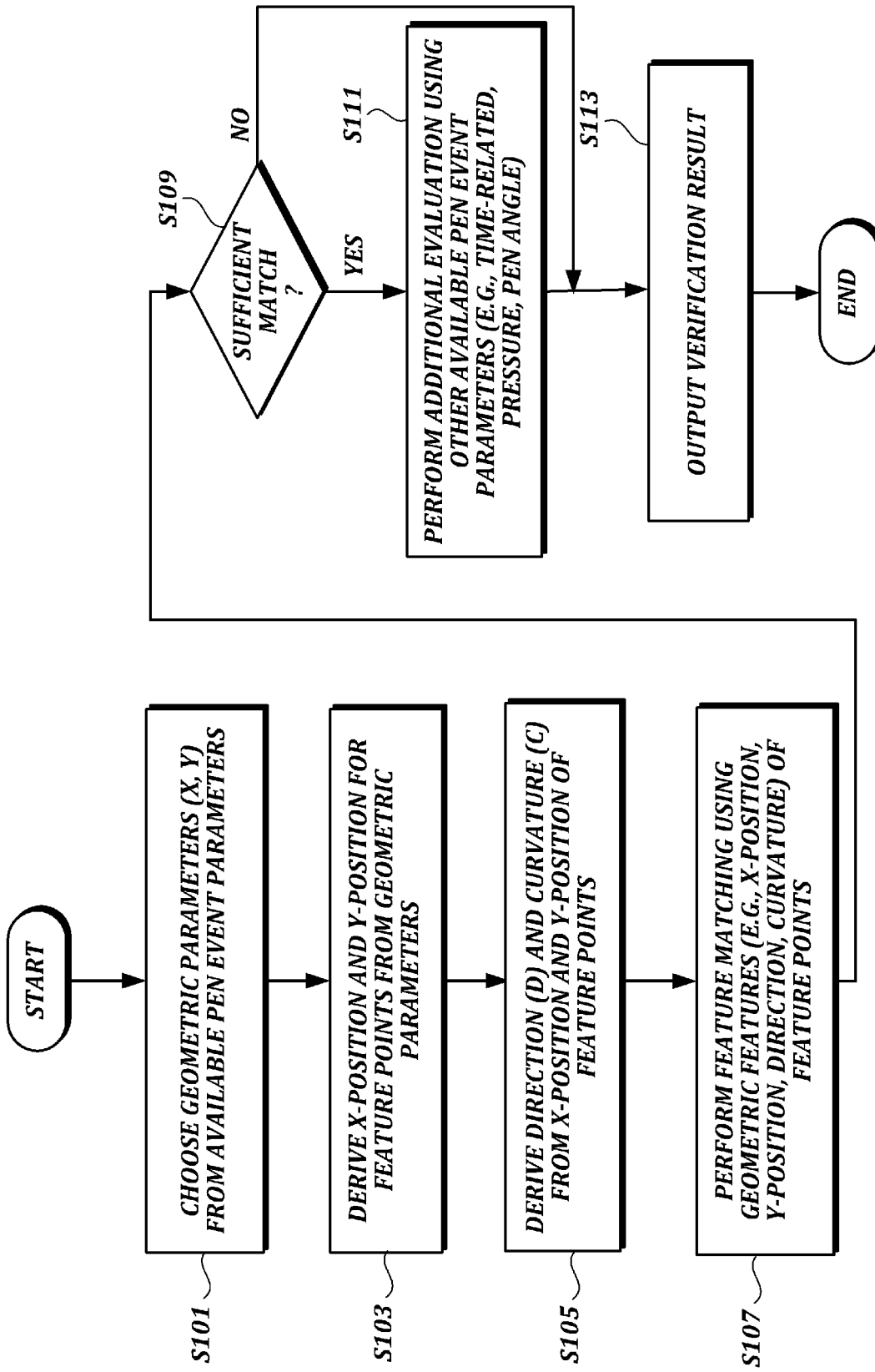
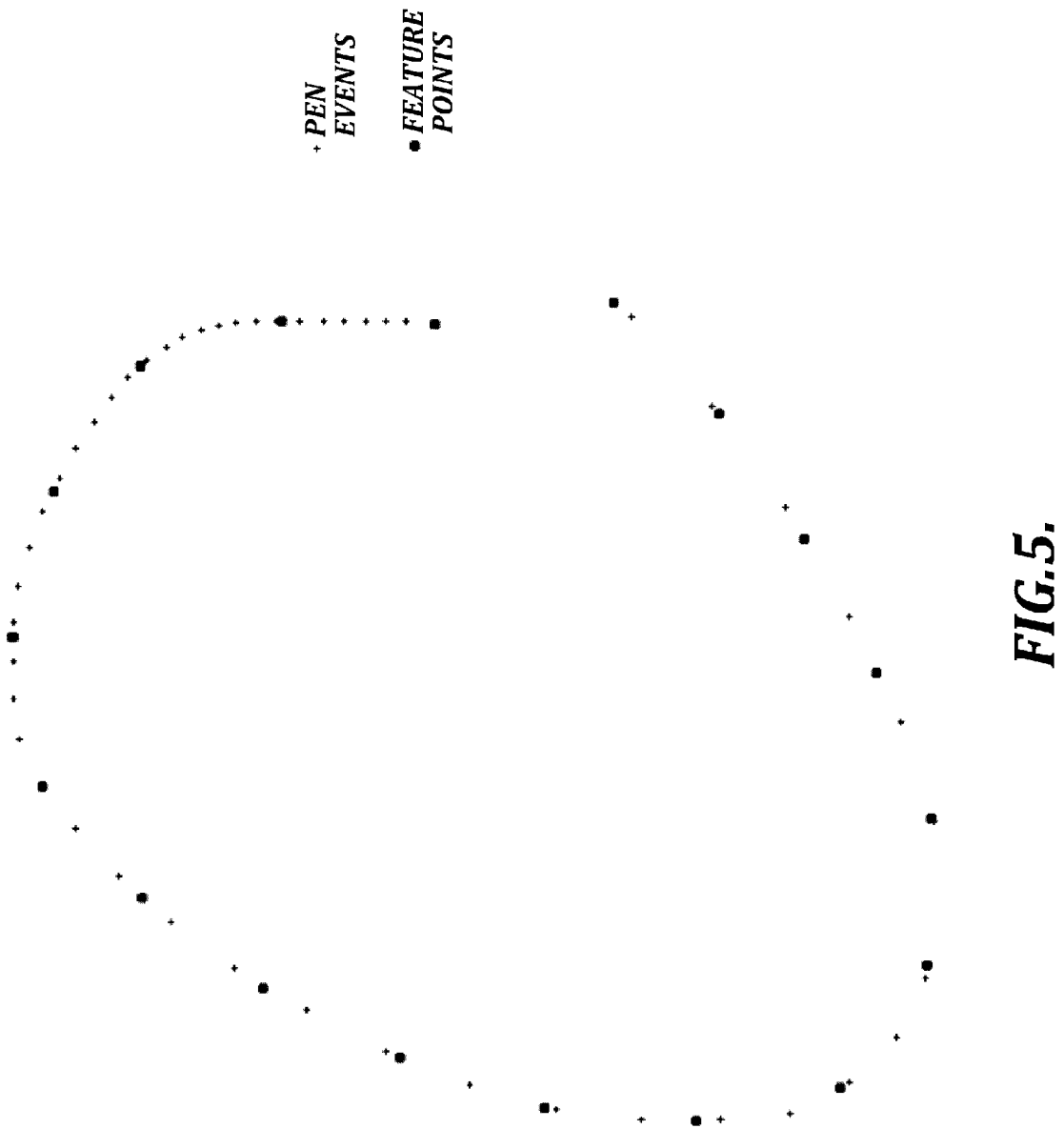
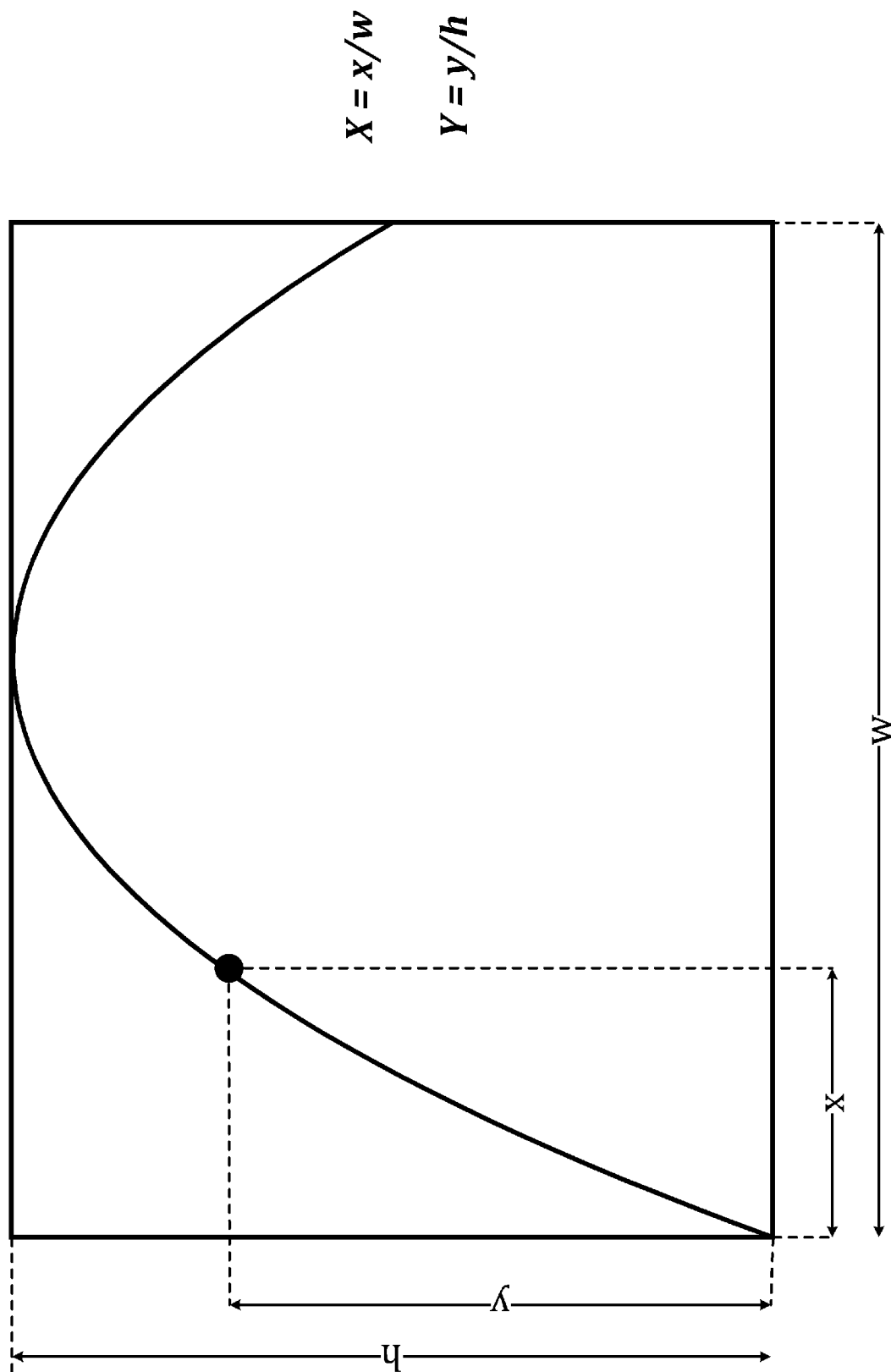


FIG.4.

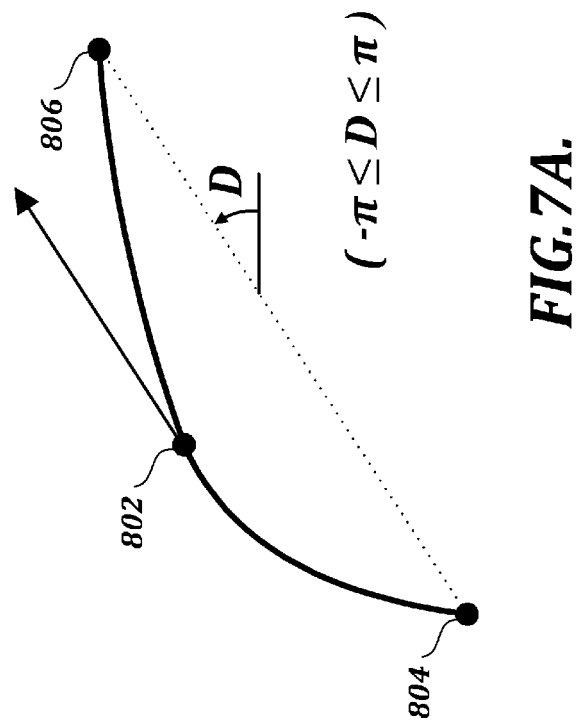
[Fig. 5]



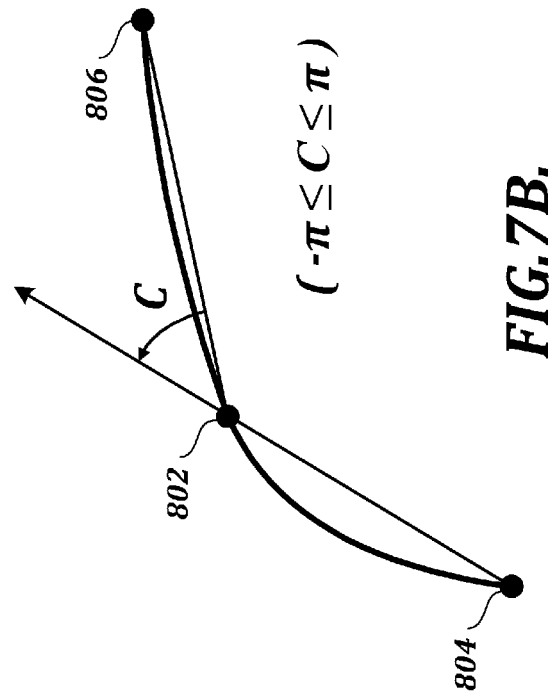
[Fig. 6]

**FIG.6.**

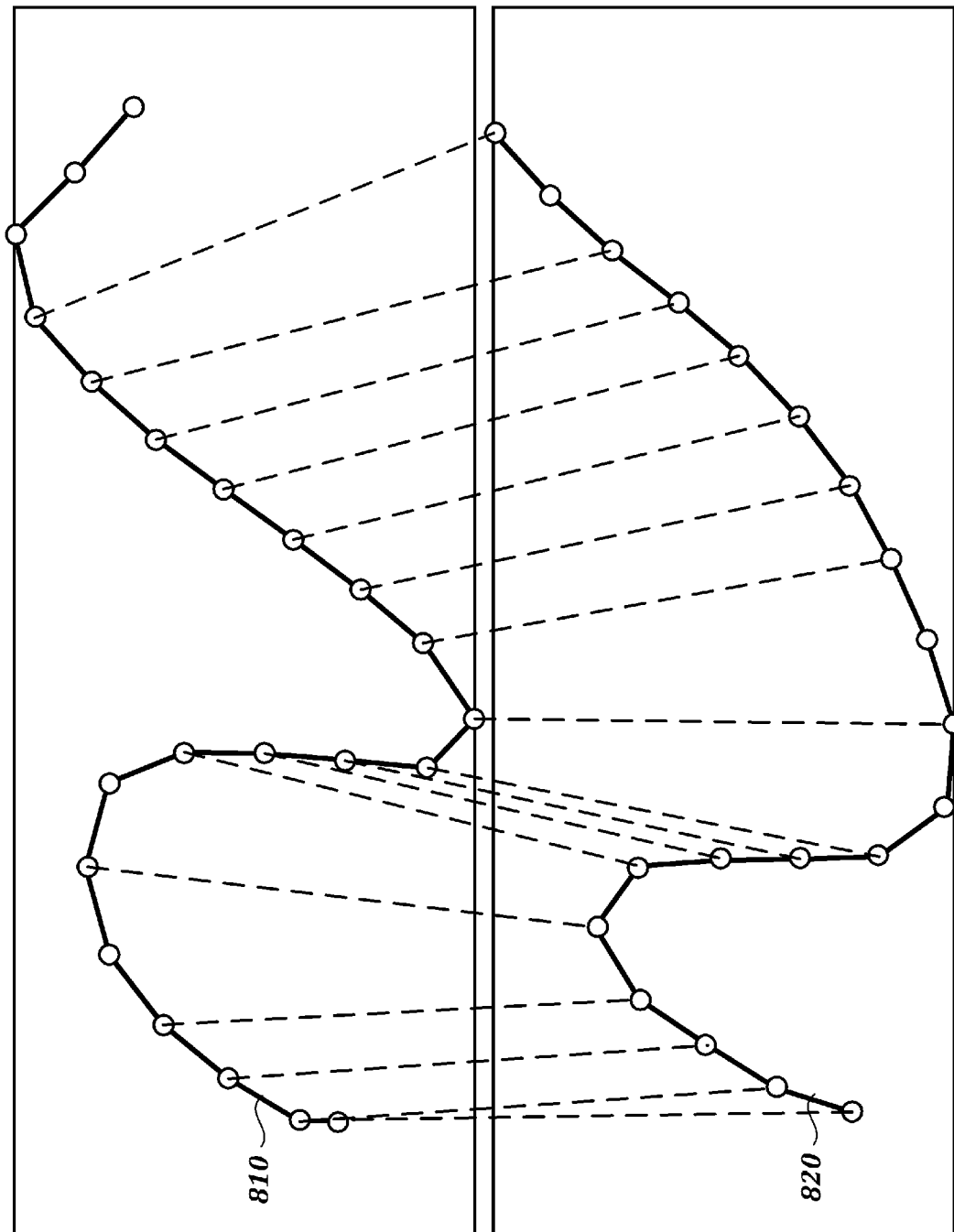
[Fig. 7A]



[Fig. 7B]



[Fig. 8]

**FIG. 8.**

[Fig. 9A]

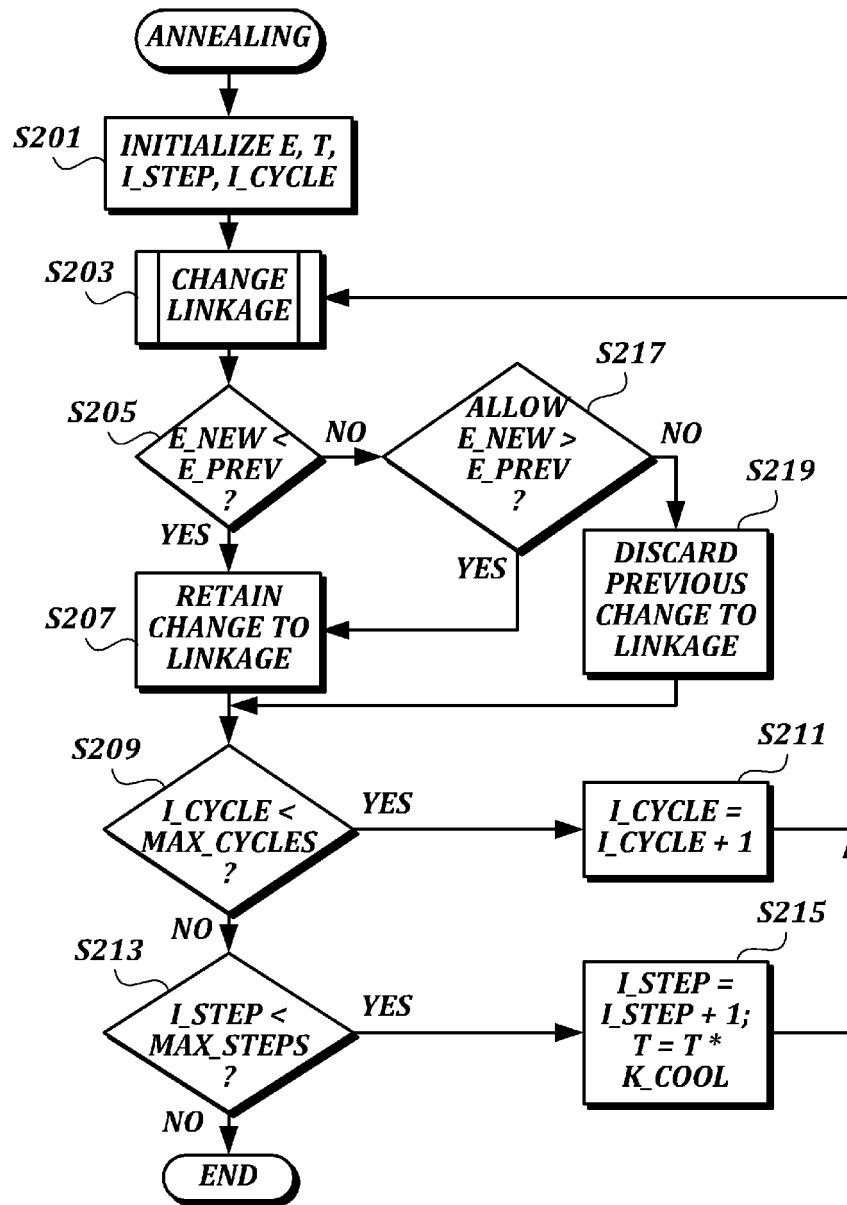
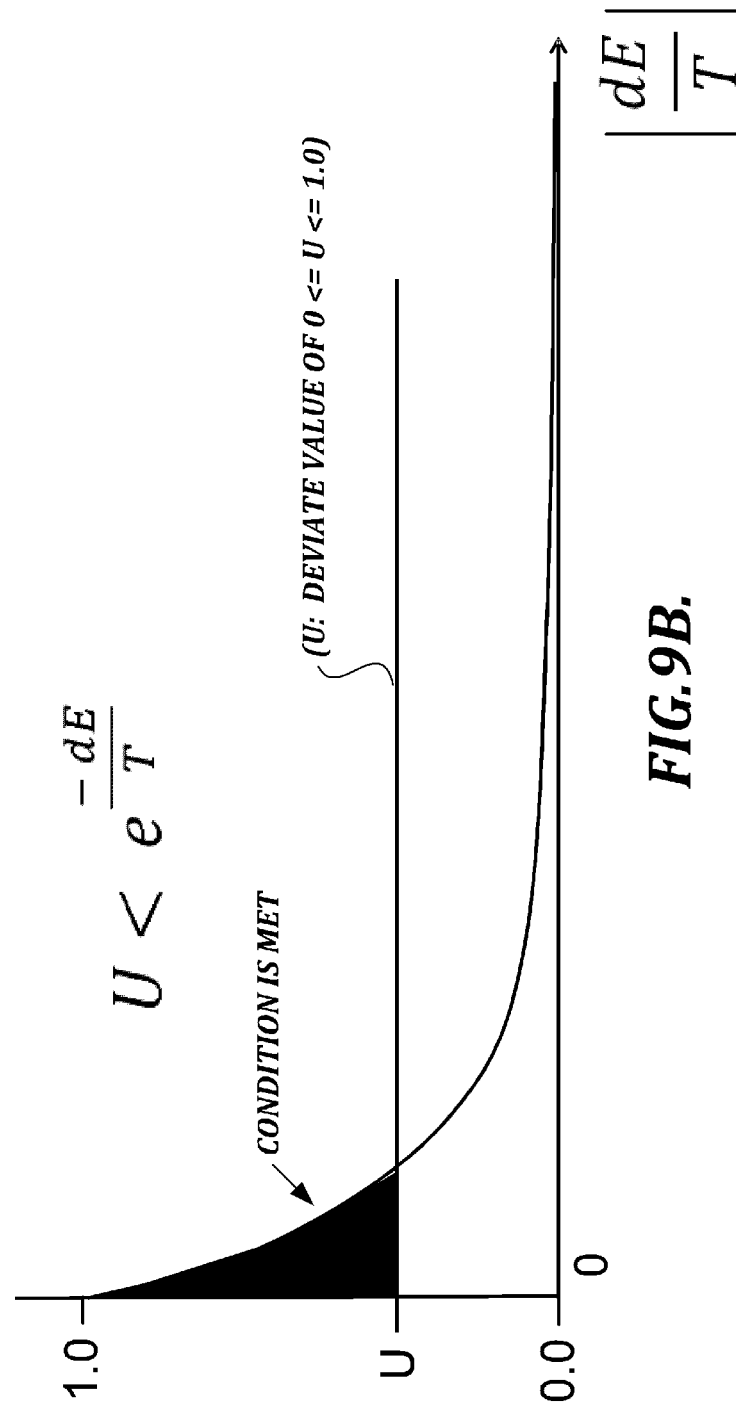
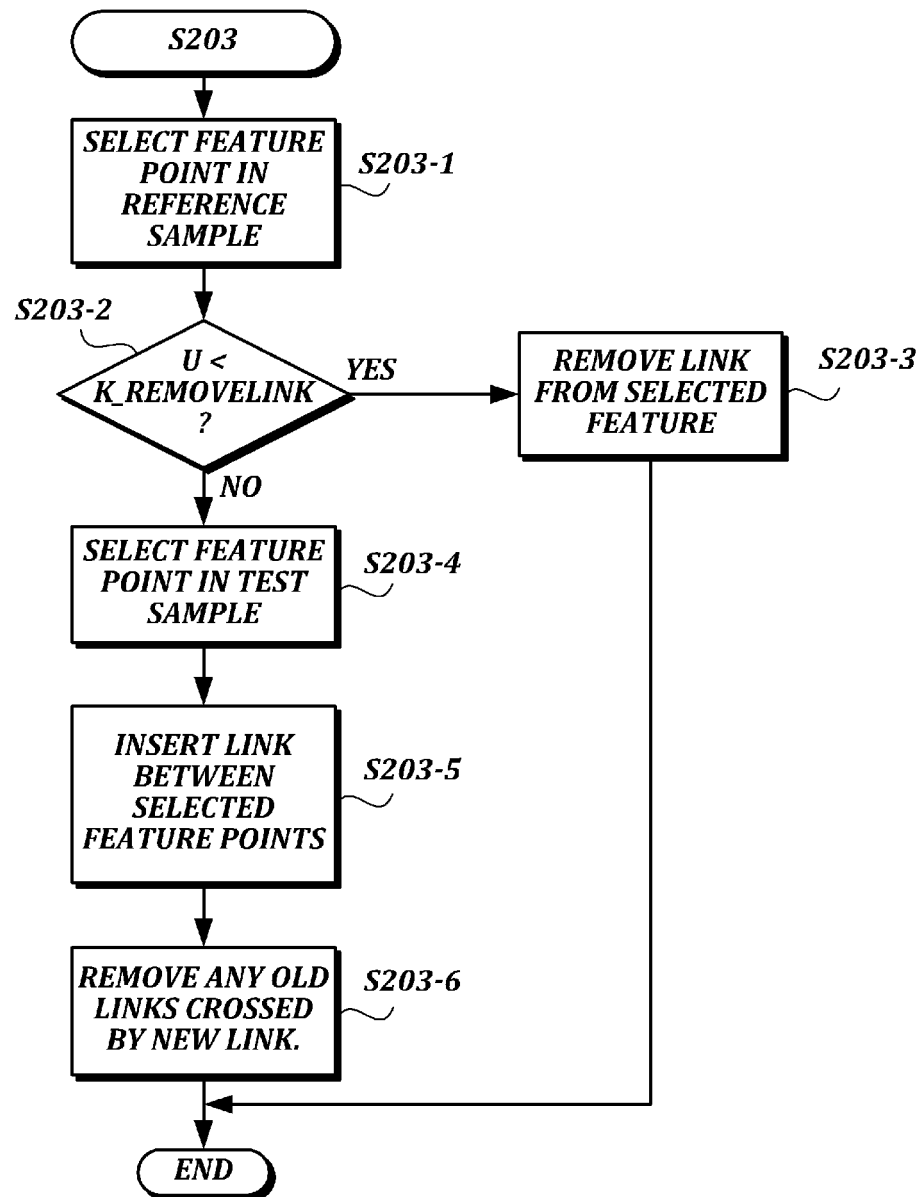


FIG. 9A.

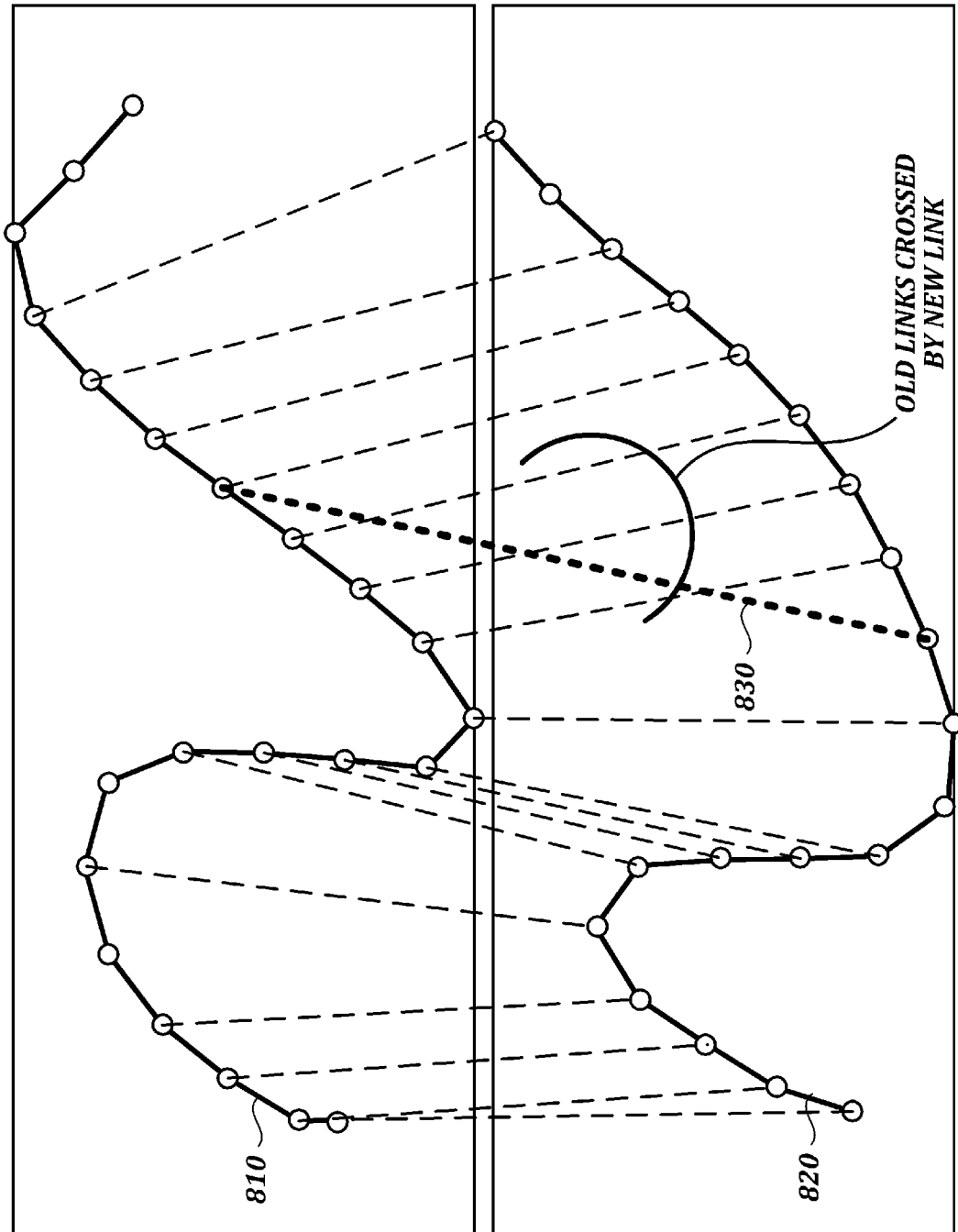
[Fig. 9B]



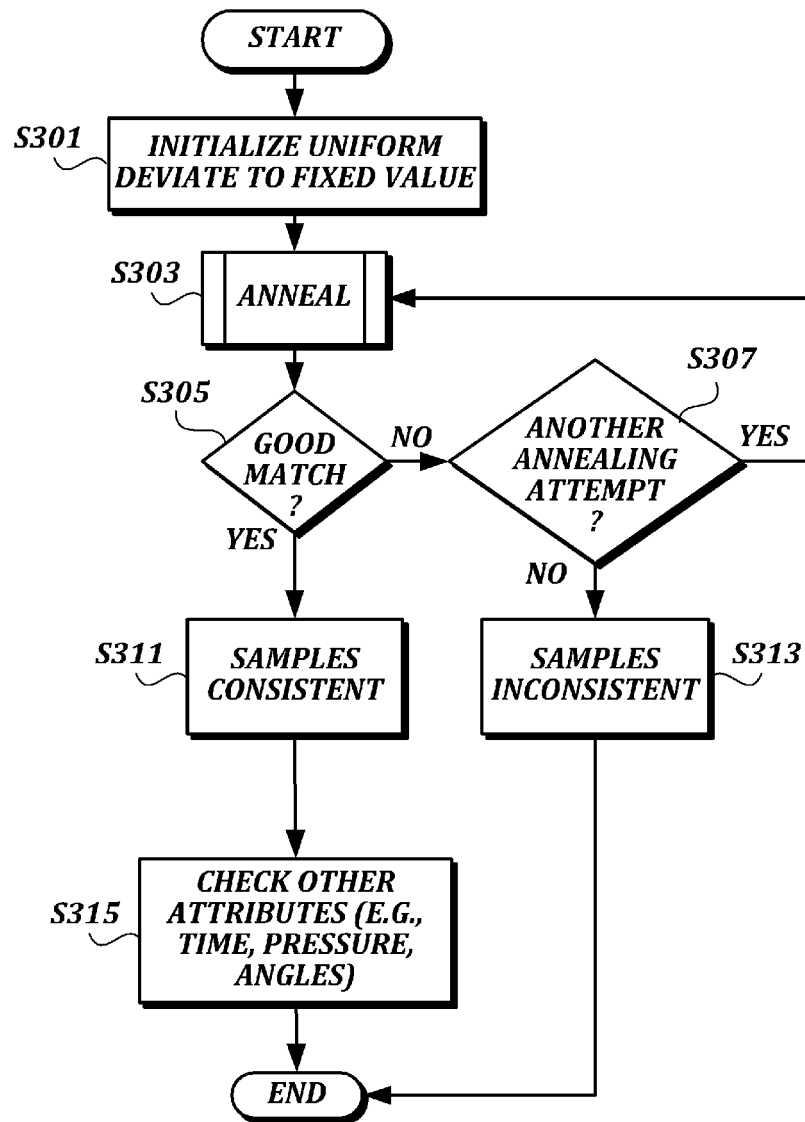
[Fig. 9C]

**FIG. 9C.**

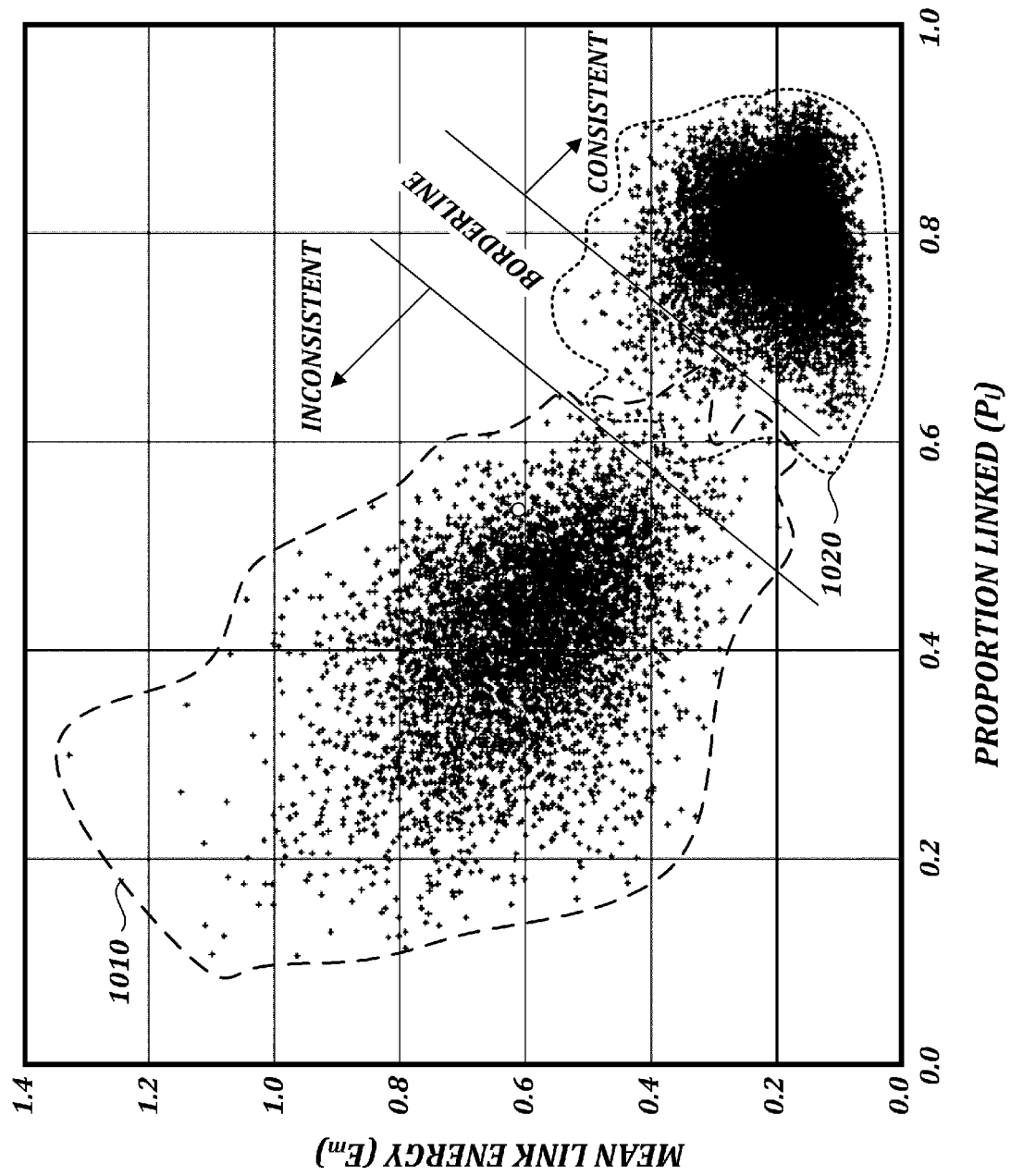
[Fig. 9D]

**FIG. 9D.**

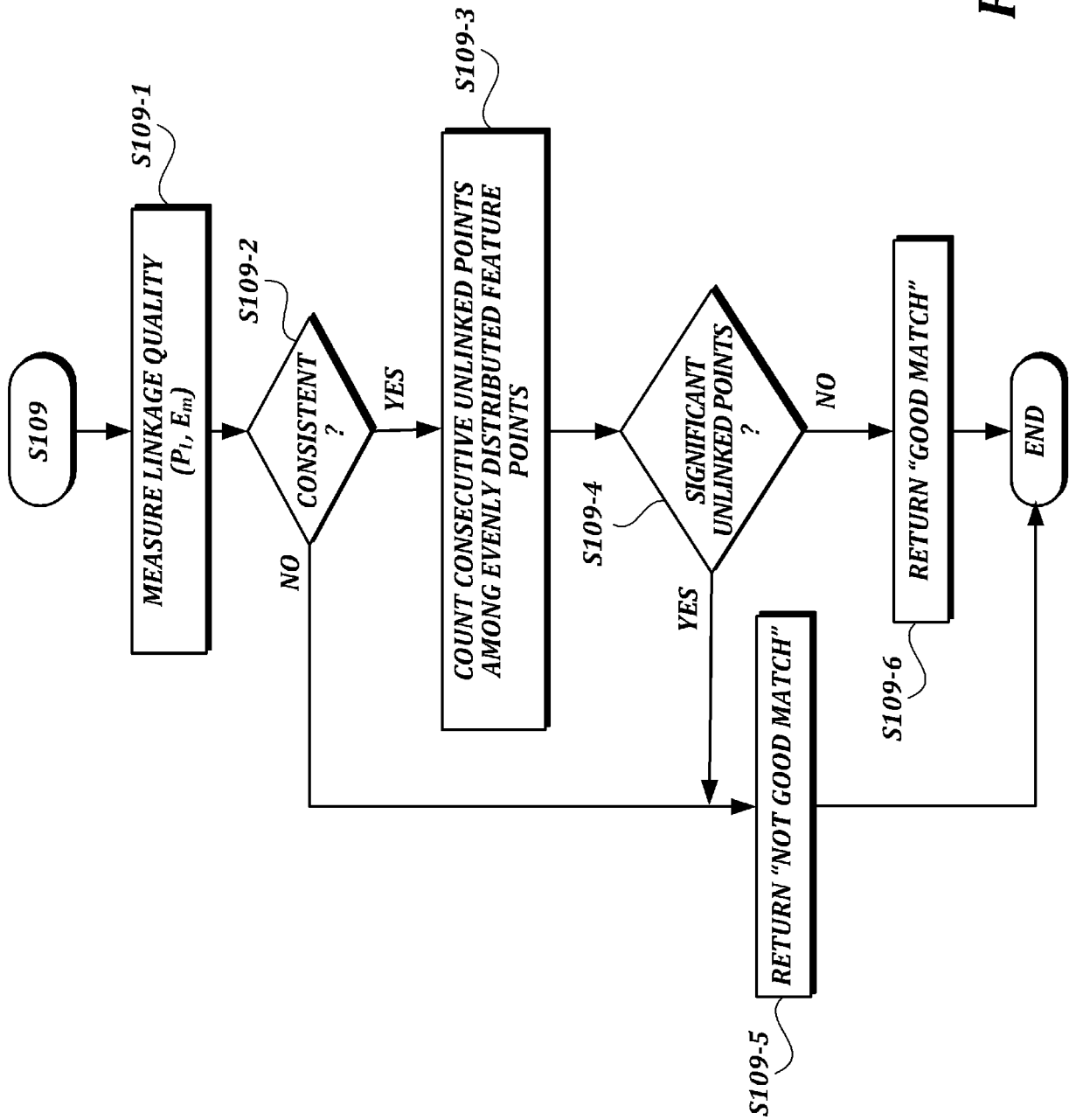
[Fig. 9E]

**FIG. 9E.**

[Fig. 10]

**FIG.10.**

[Fig. 11]

**FIG.11.**

[Fig. 12A]

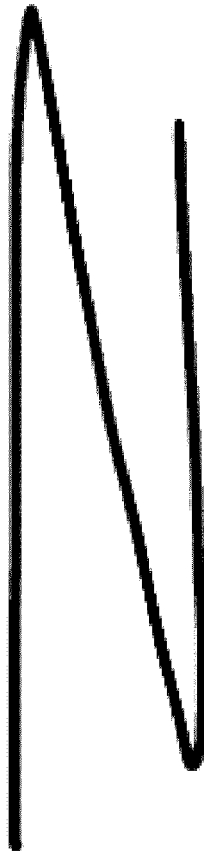


FIG.12A.

[Fig. 12B]

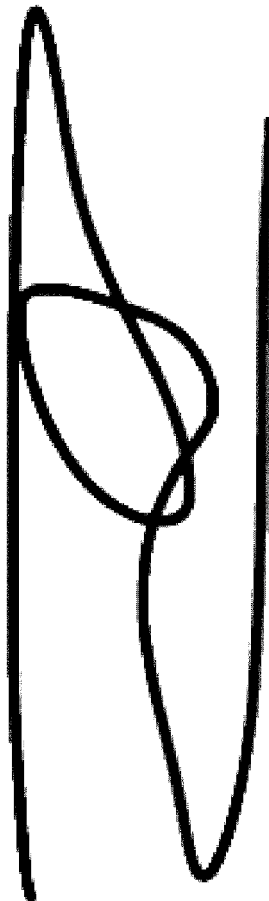
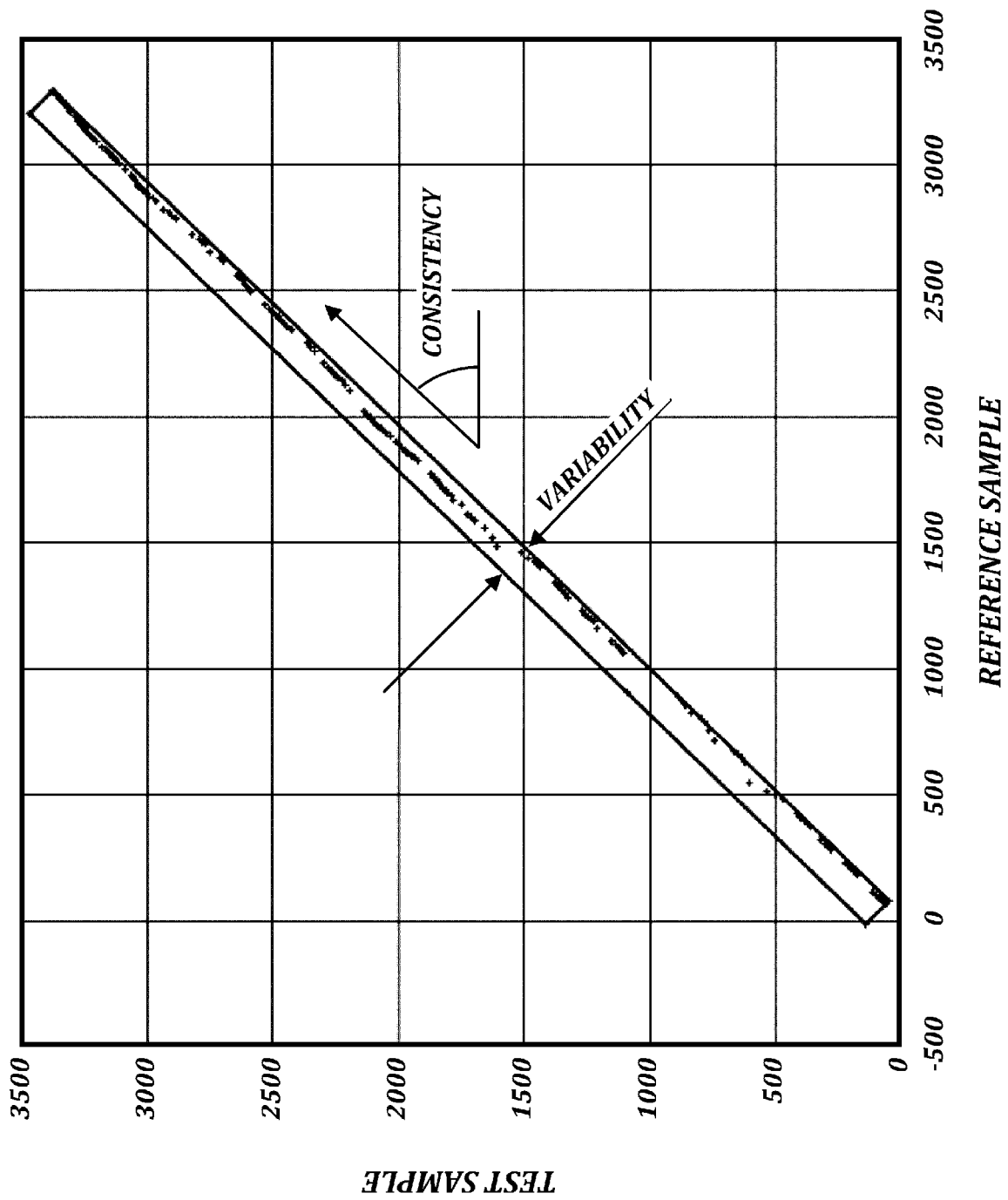
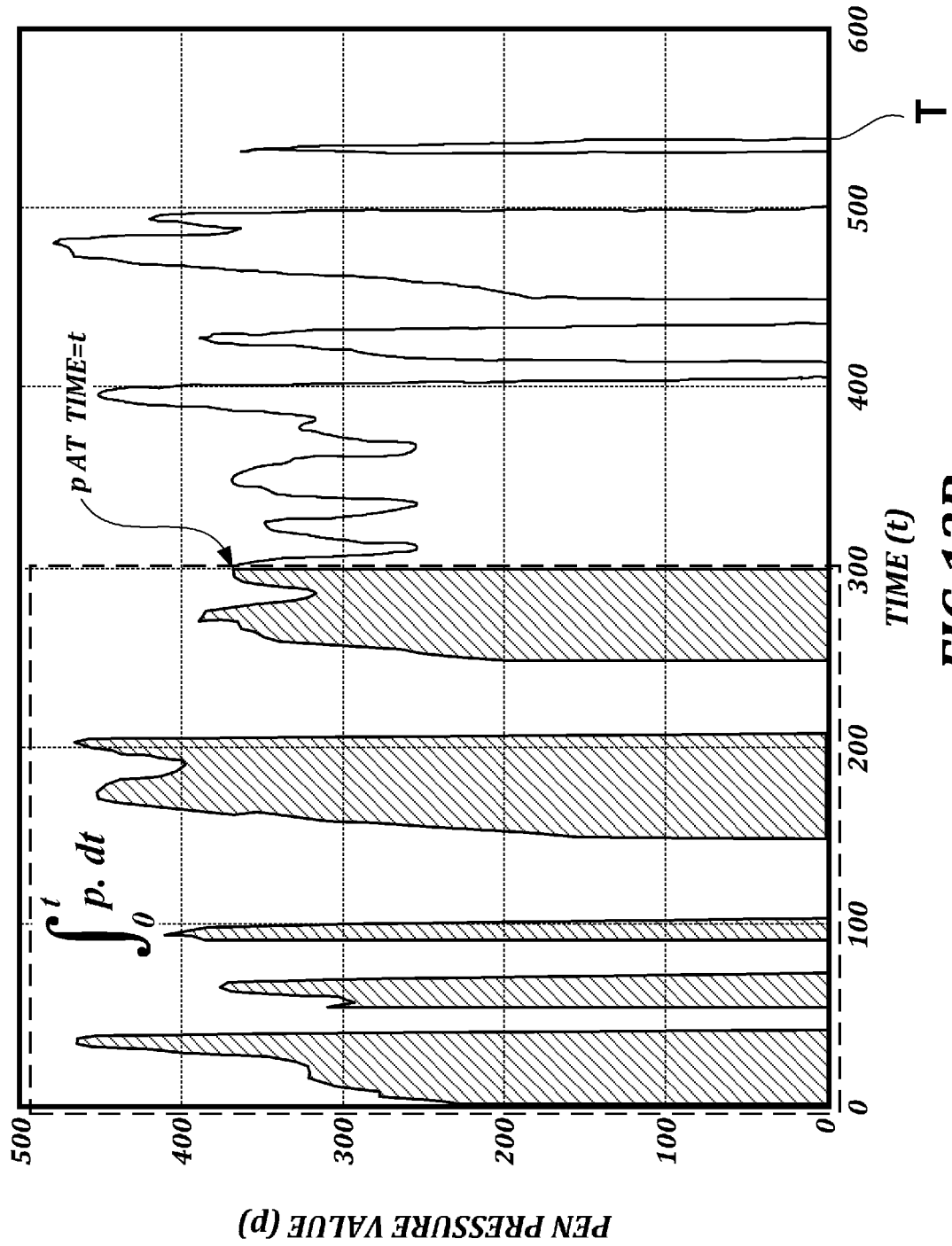


FIG.12B.

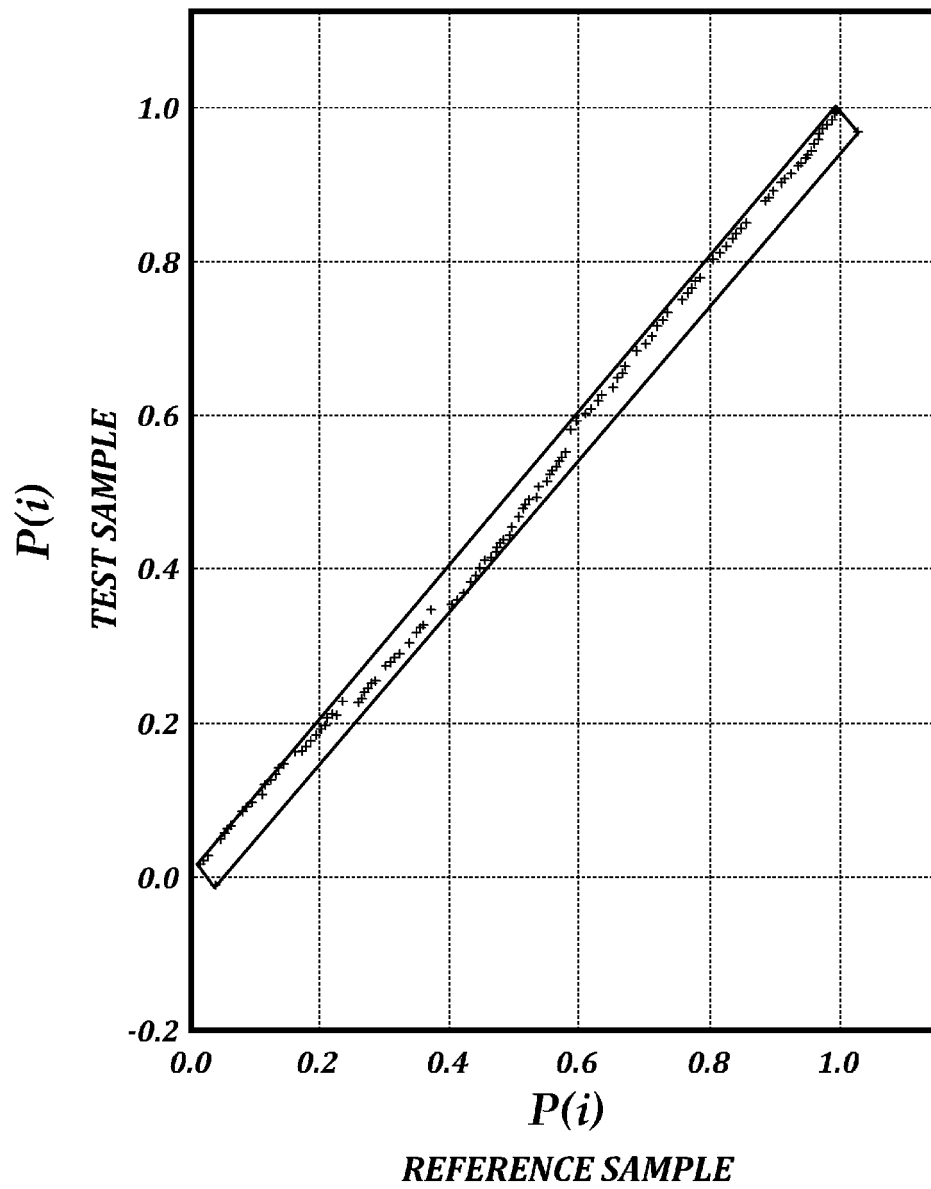
[Fig. 13A]

**FIG. 13A.**

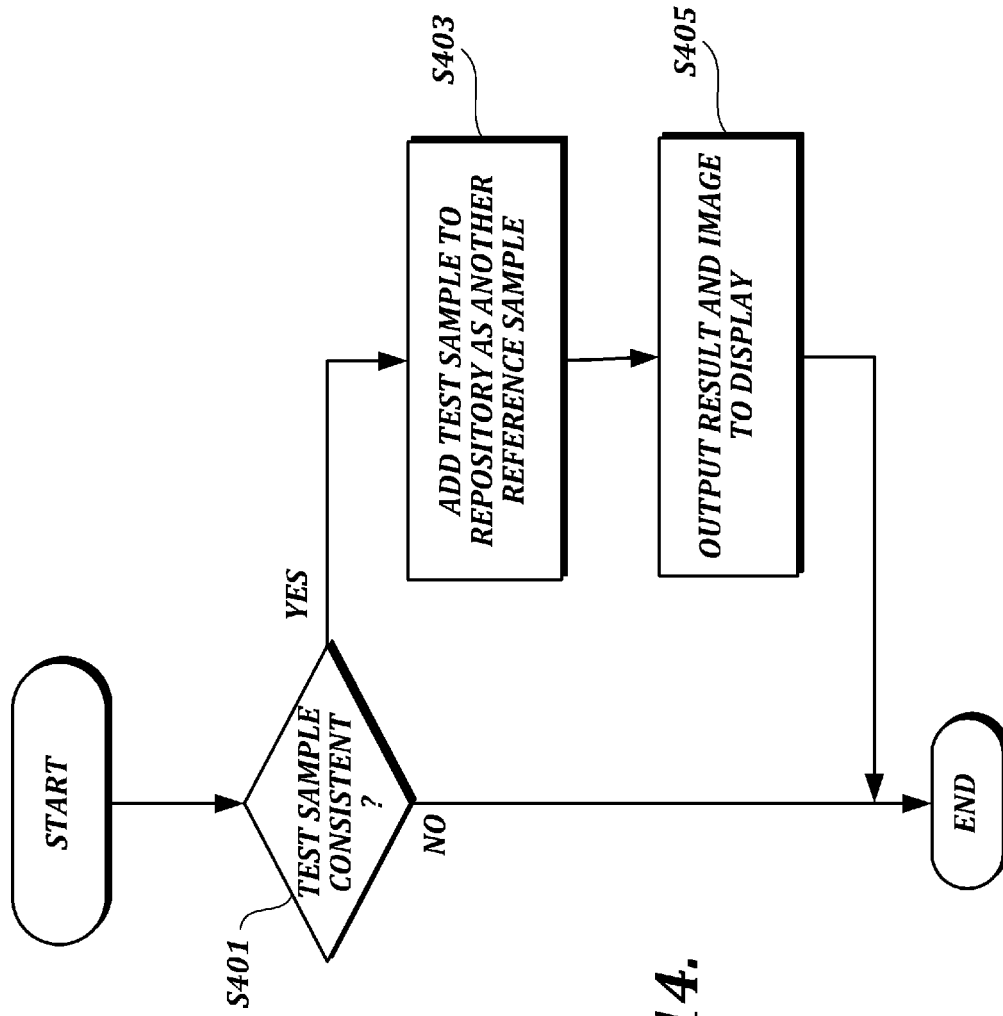
[Fig. 13B]



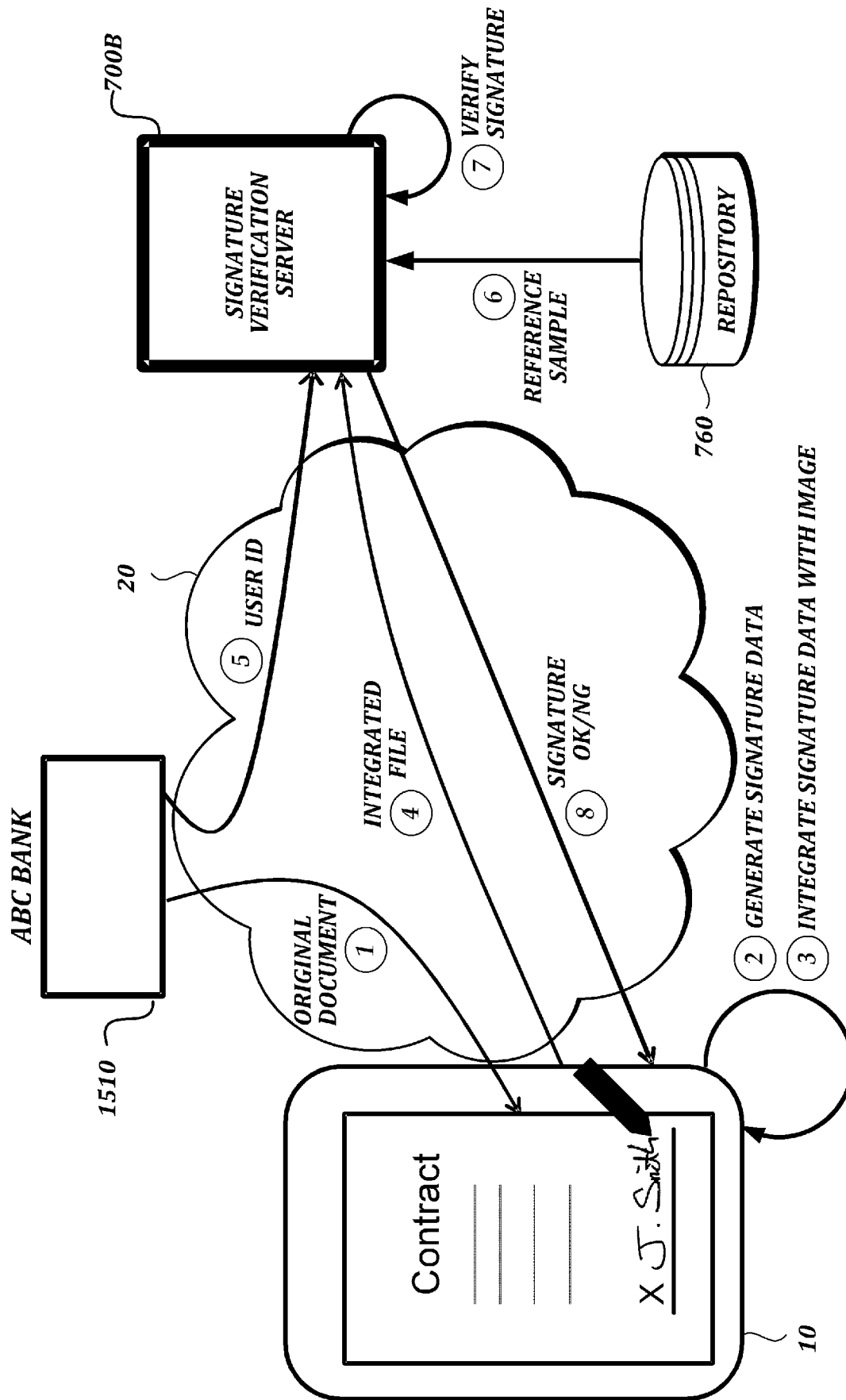
[Fig. 13C]

**FIG.13C.**

[Fig. 14]

**FIG.14.**

[Fig. 15]

**FIG.15.**

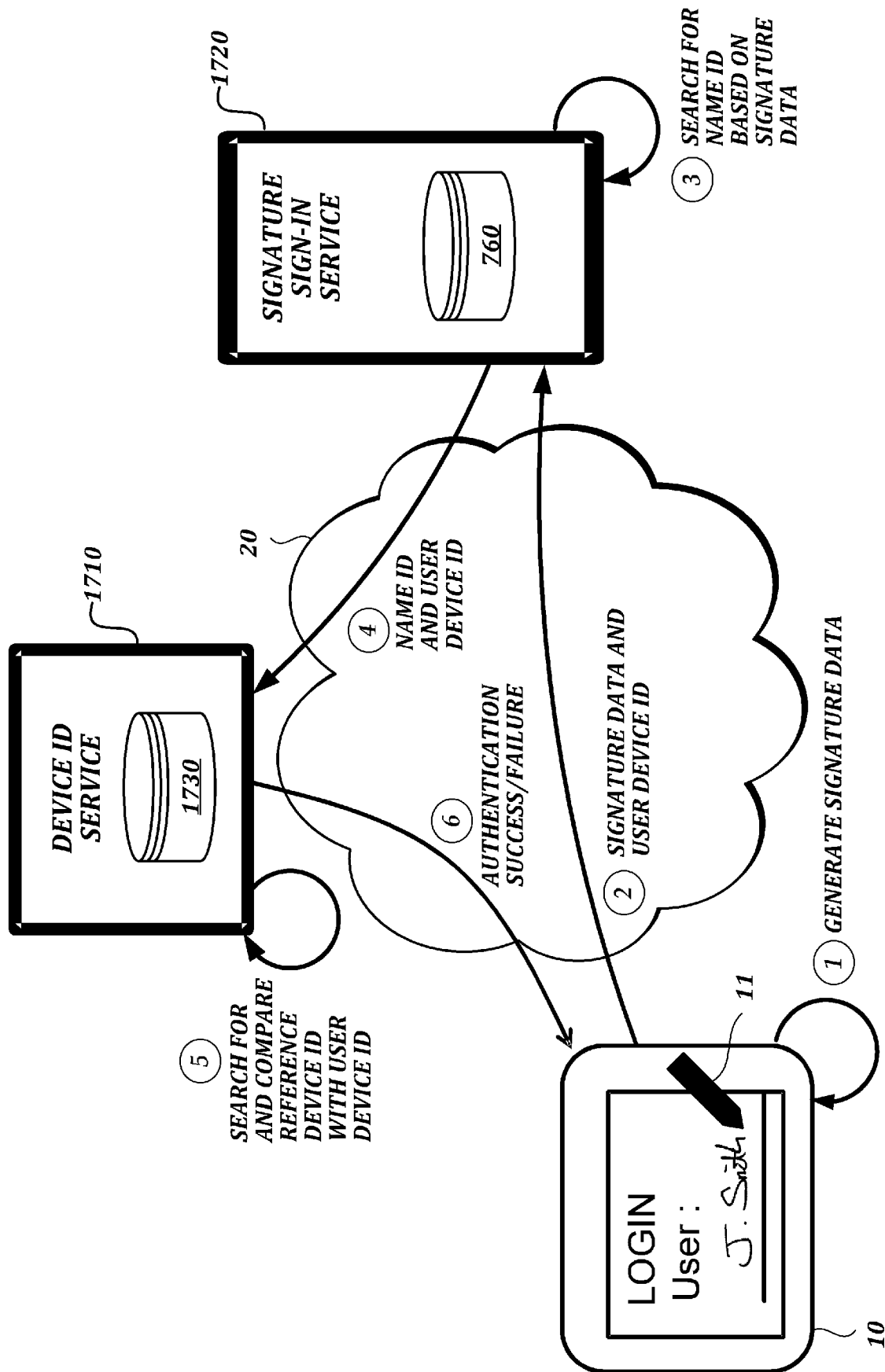
[Fig. 16]

SERVICE ID	USER ID	REFERENCE SIGNATURE(S)
ABC	#0	J. Smith
	#1	J. Smith
	...	W. Blayds
	...	...
XYZ	#0	山田 太郎
	...	山田 太郎
	...	...

FIG.16.

1690

[Fig. 17]

**FIG.17.**

[Fig. 18A]

1890

REFERENCE SIGNATURE(S)	NAME ID	
	LOCAL ID	SERVICE ID
J. Smith	#0	ABC
J. Smith		
W. blays	#1	ABC
⋮	⋮	⋮
山田 太郎	#0	XYZ
山田 太郎		
⋮	⋮	⋮

FIG.18A.

[Fig. 18B]

1892

STYLUS ID	NAME ID	
	SERVICE ID	LOCAL ID
#0	ABC	#1
#1	ABC	#N
	XYZ	#2
	⋮	⋮
⋮	⋮	⋮
	ABC	#0
⋮	⋮	⋮

FIG.18B.

[Fig. 19A]

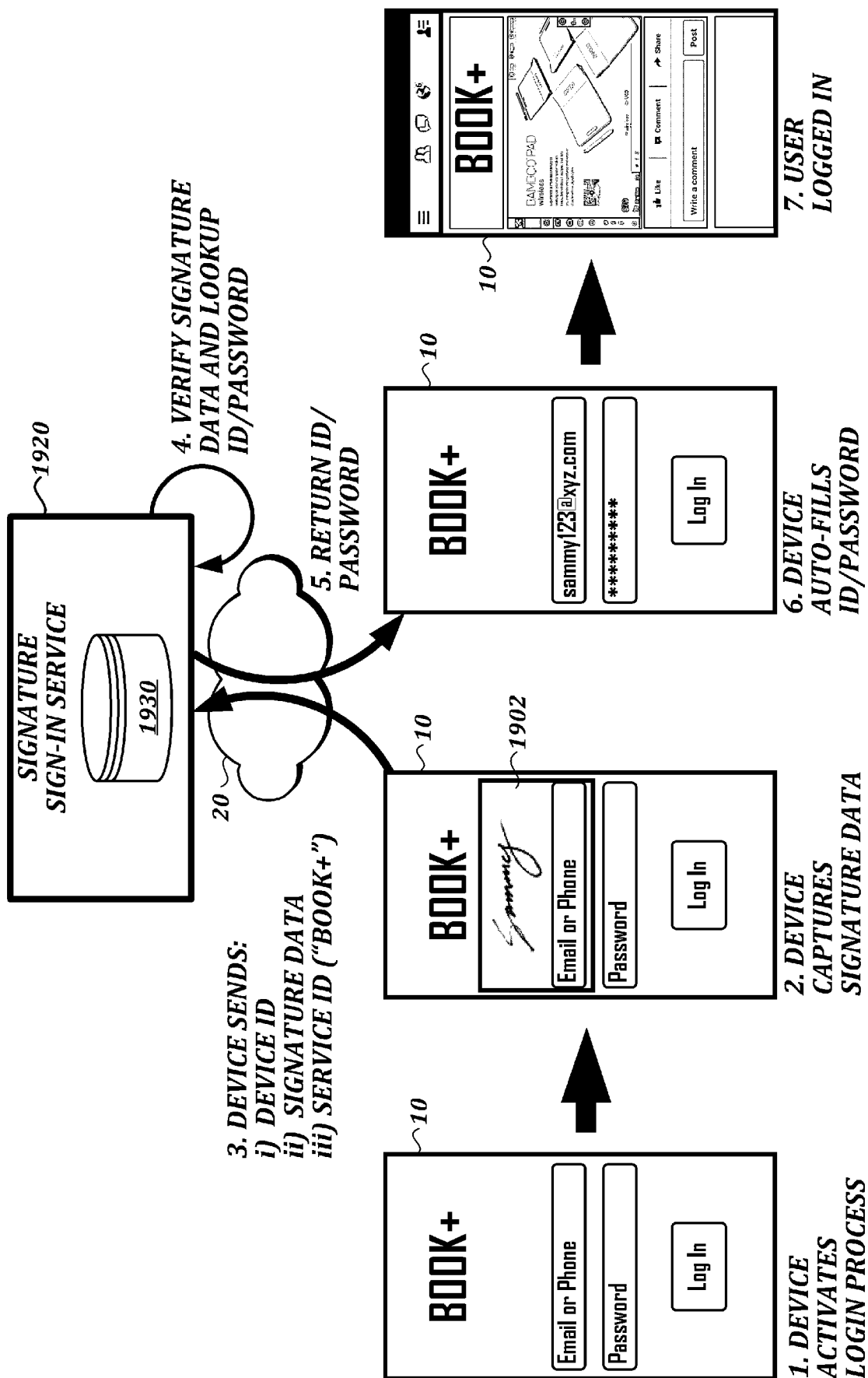


FIG.19A.

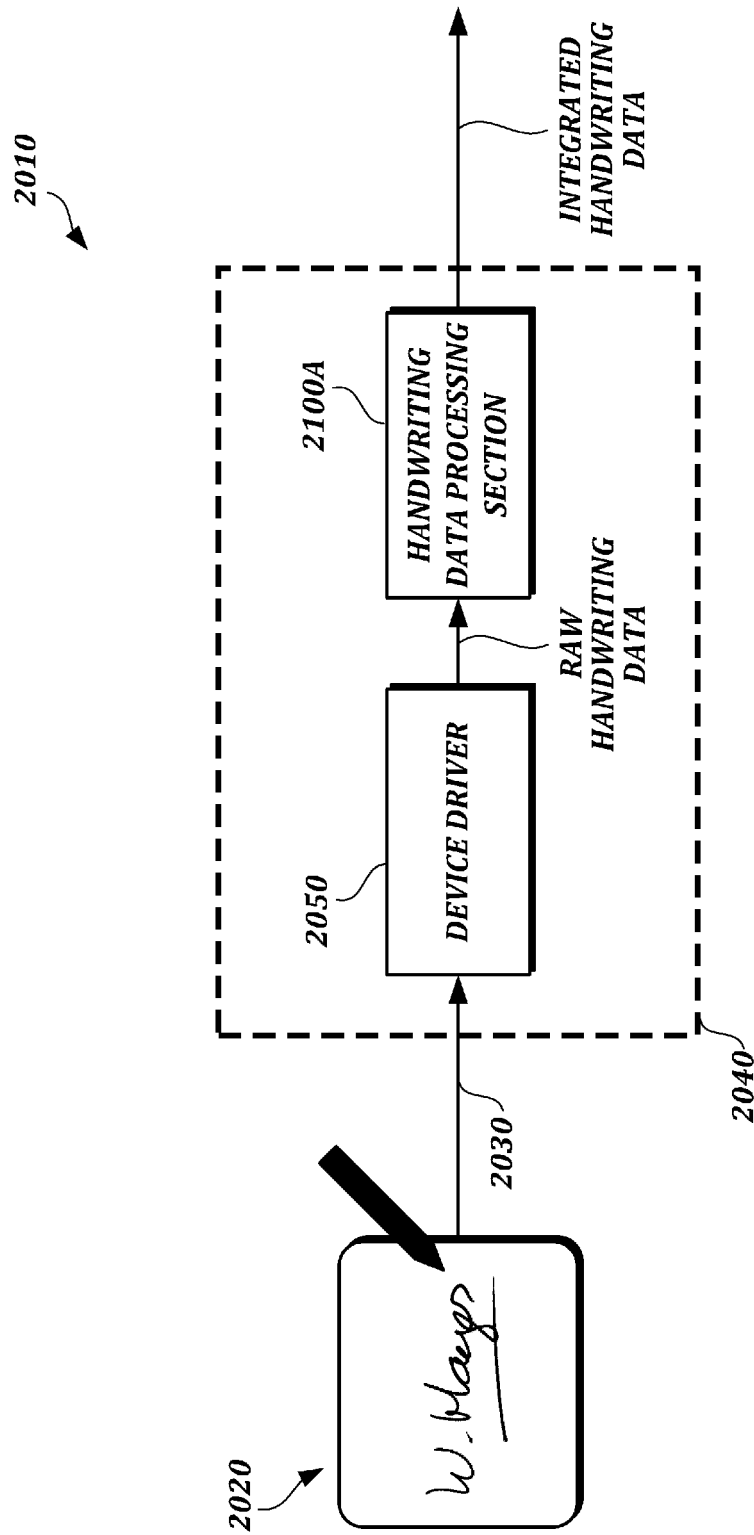
[Fig. 19B]

1990

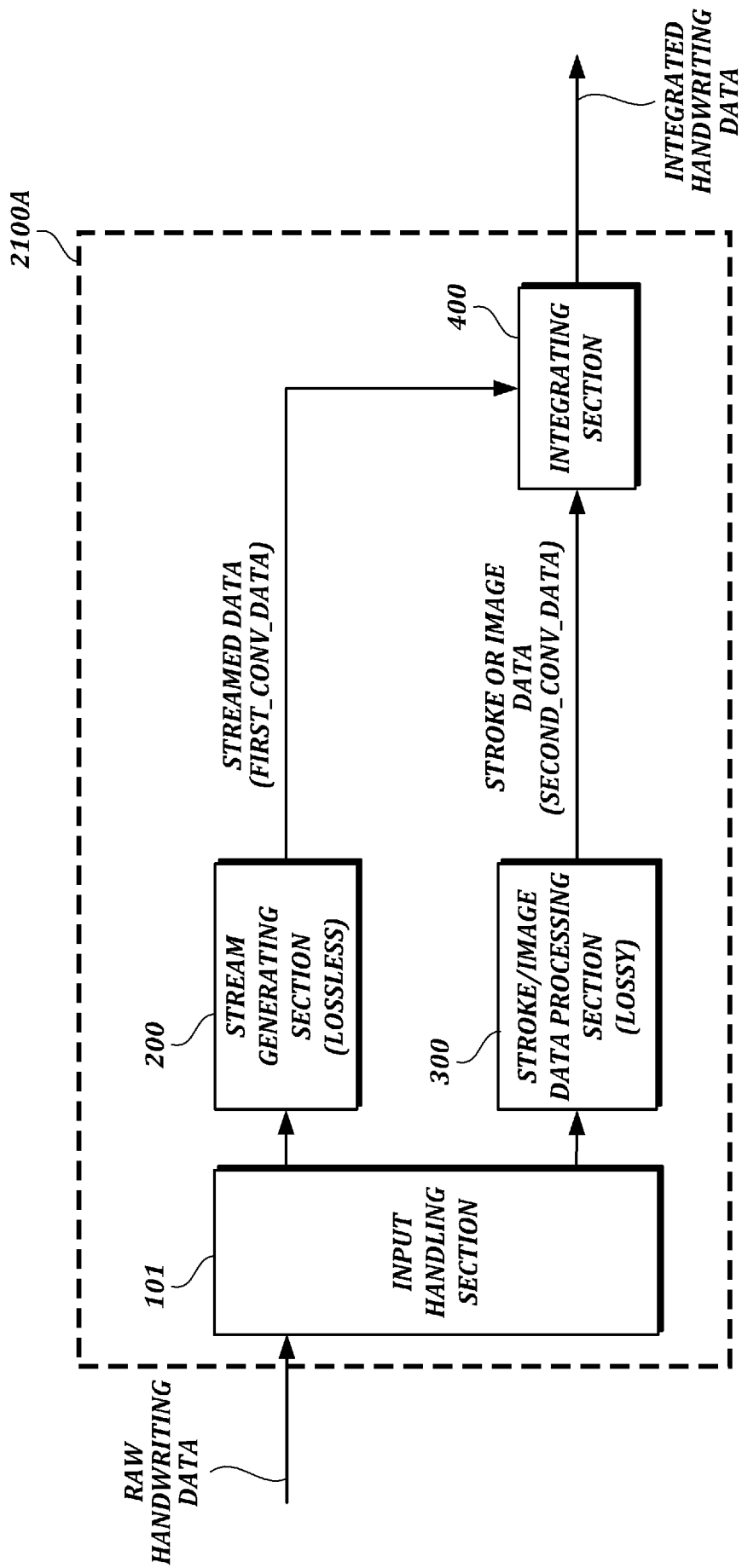
INPUT			RETURN
(i) PEN/ DEVICE ID	(ii) TEST SIGNATURE (TO BE VERIFIED)	(iii) SERVICE ID	AUTHENTICATION INFORMATION (E.G. USERNAME:PASSWORD)
#0	<i>W. Hayes</i>	ABC	ABCWhayes:pass123
#1	<i>J. Smith</i>	ABC	ABCJsmith:pass123
		XYZ	XYZJsmith:pass123
		• • •	• • •
• • •	• • •	• • •	• • •
#N	<i>Sammy</i>	Book+	sammy123:pass!bookP
• • •	• • •	• • •	• • •

FIG.19B.

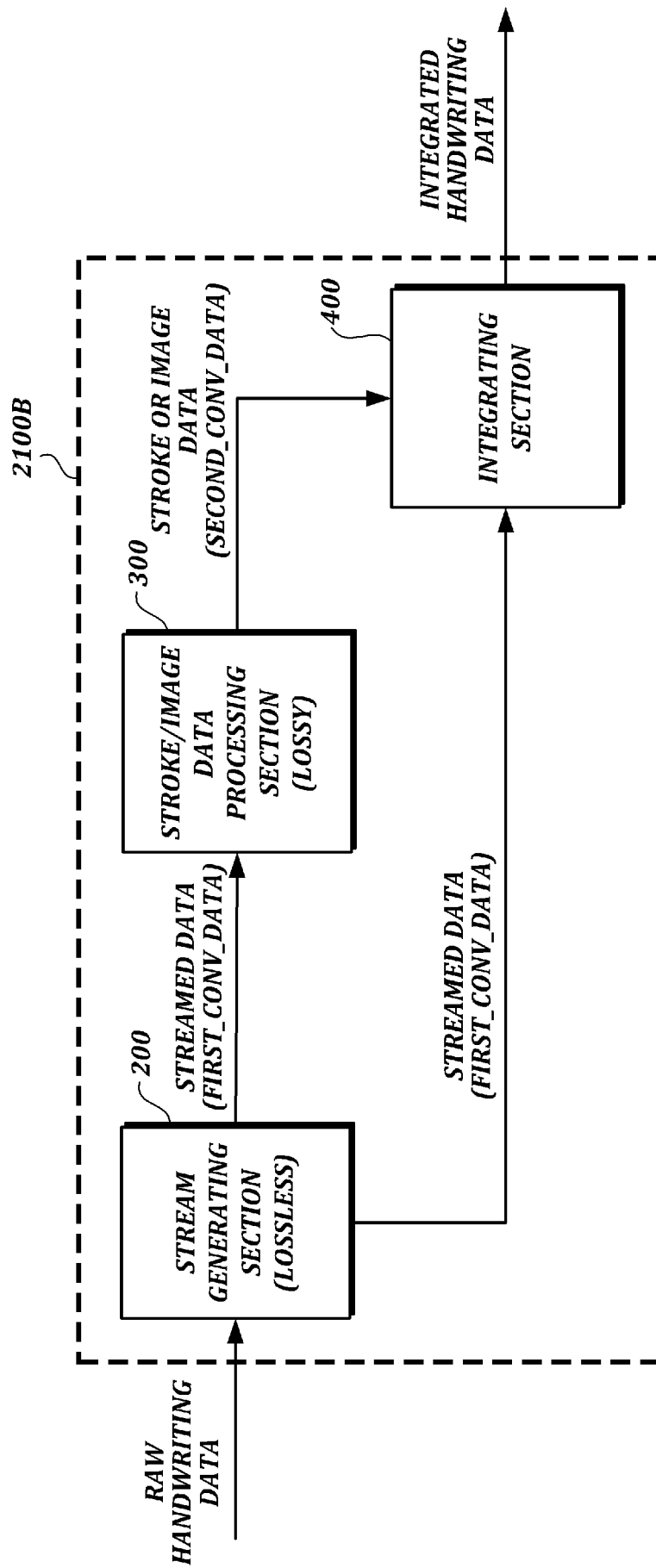
[Fig. 20]

**FIG.20.**

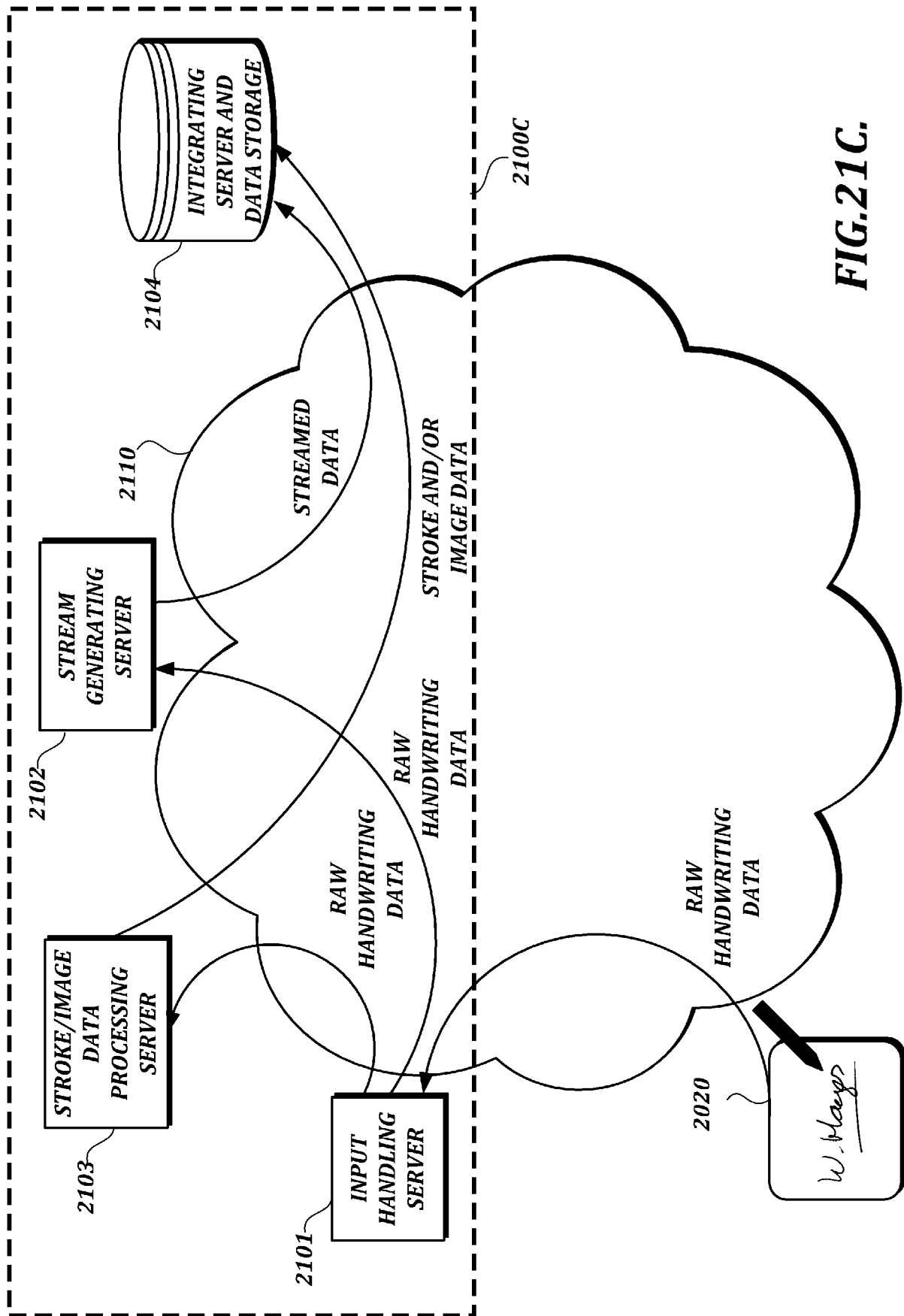
[Fig. 21A]

**FIG.21A.**

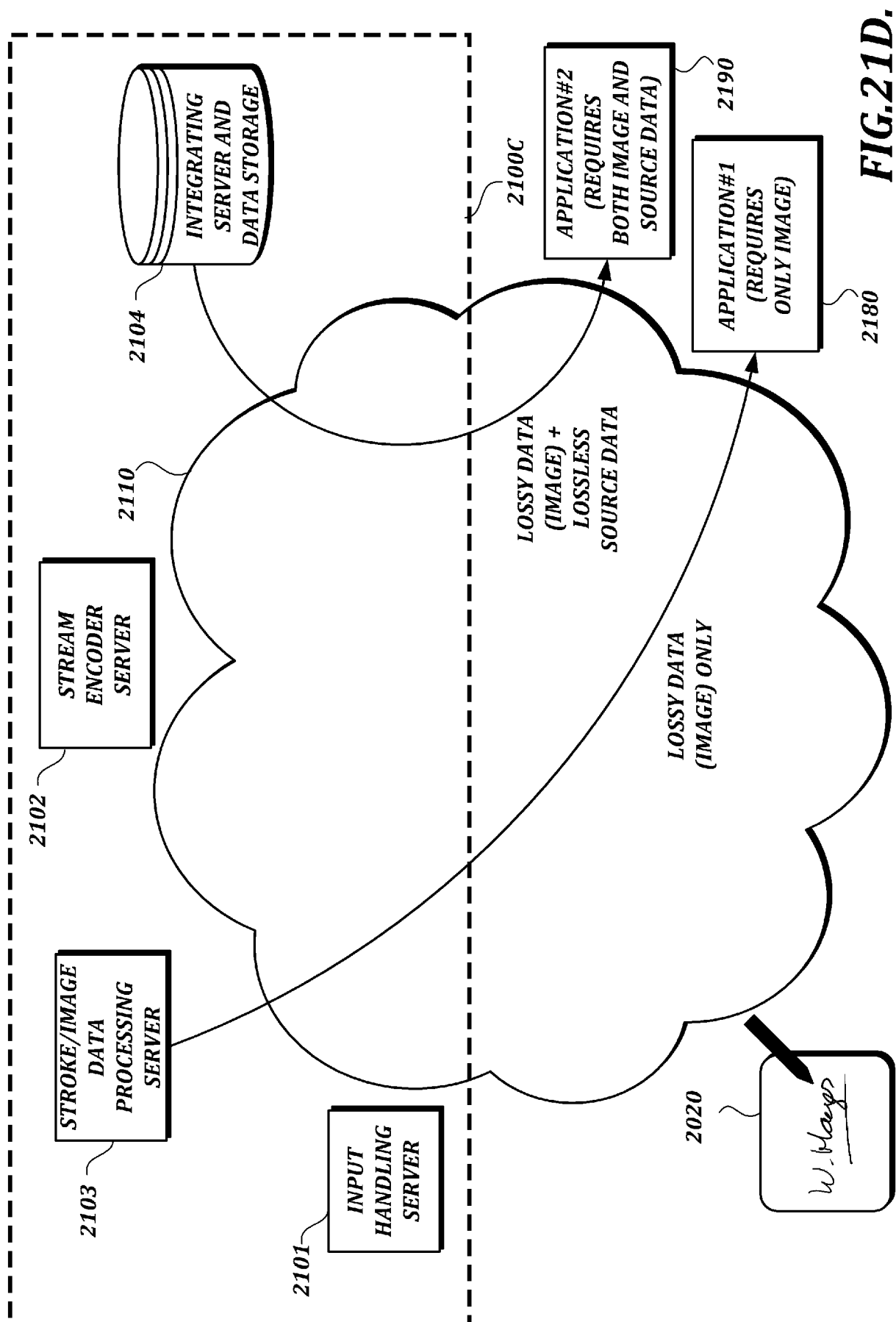
[Fig. 21B]

**FIG.21B.**

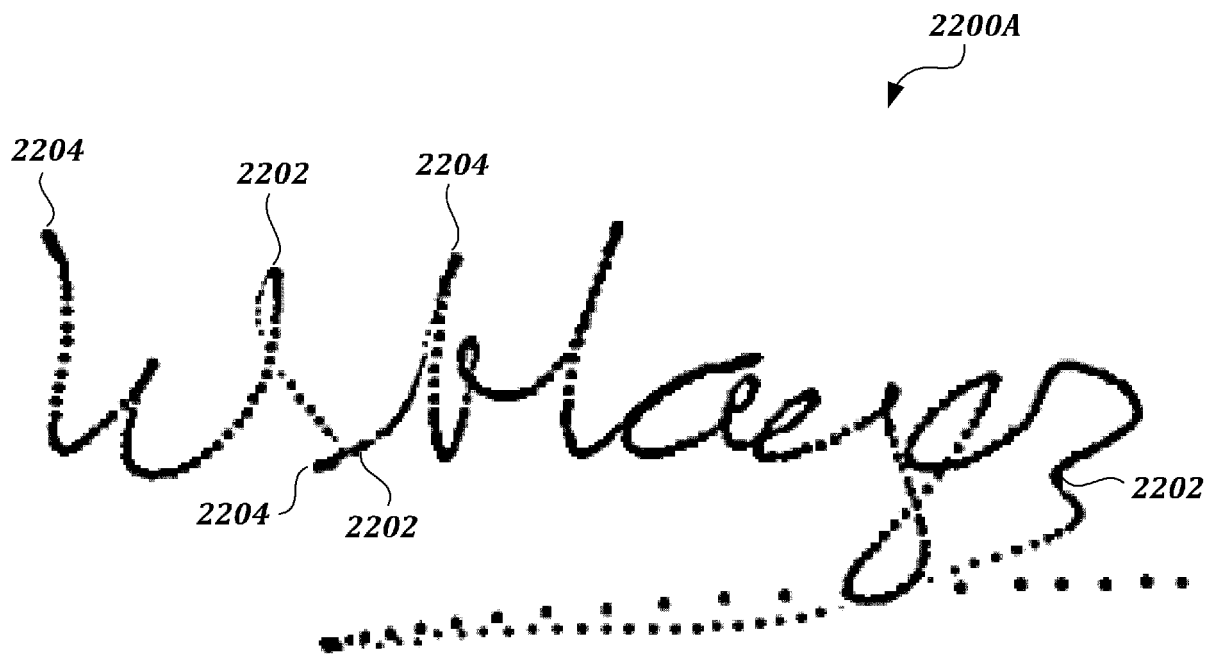
[Fig. 21C]



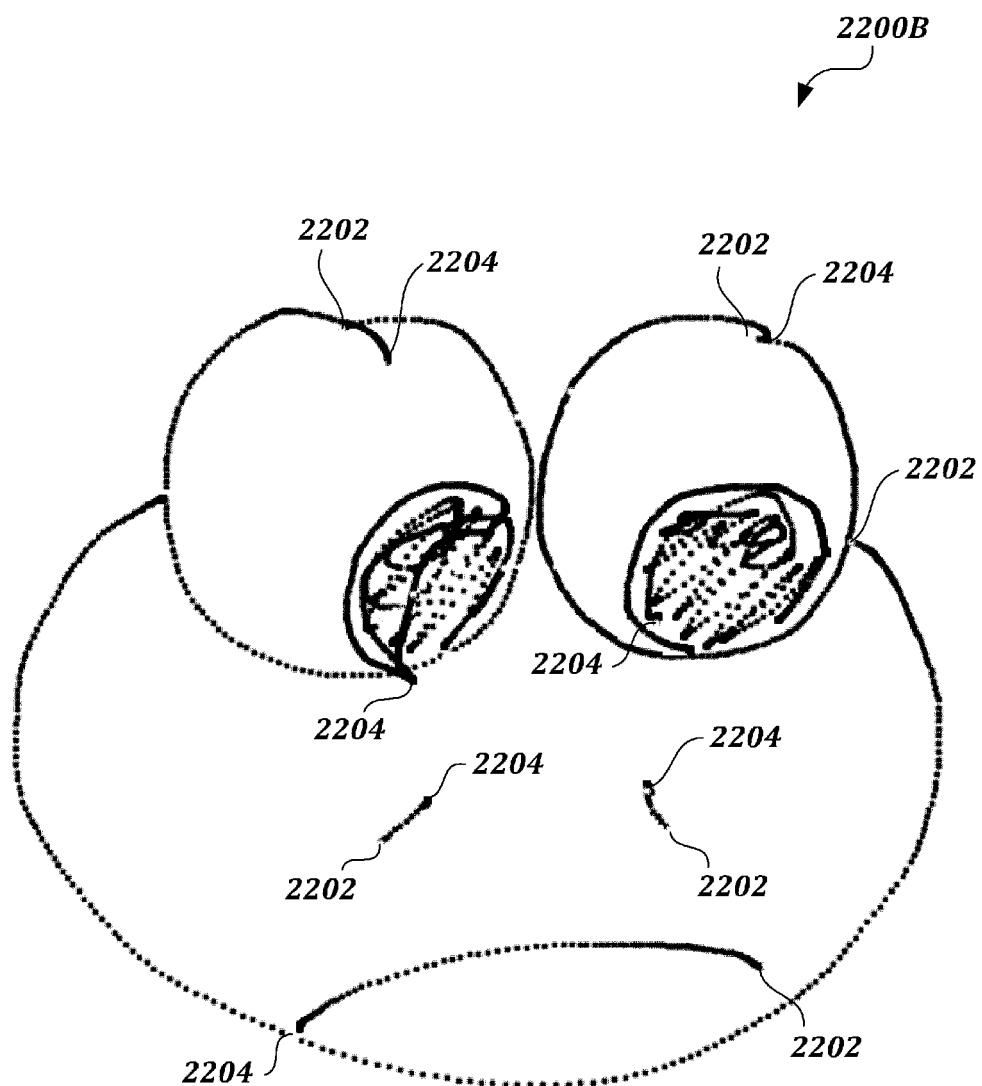
[Fig. 21D]



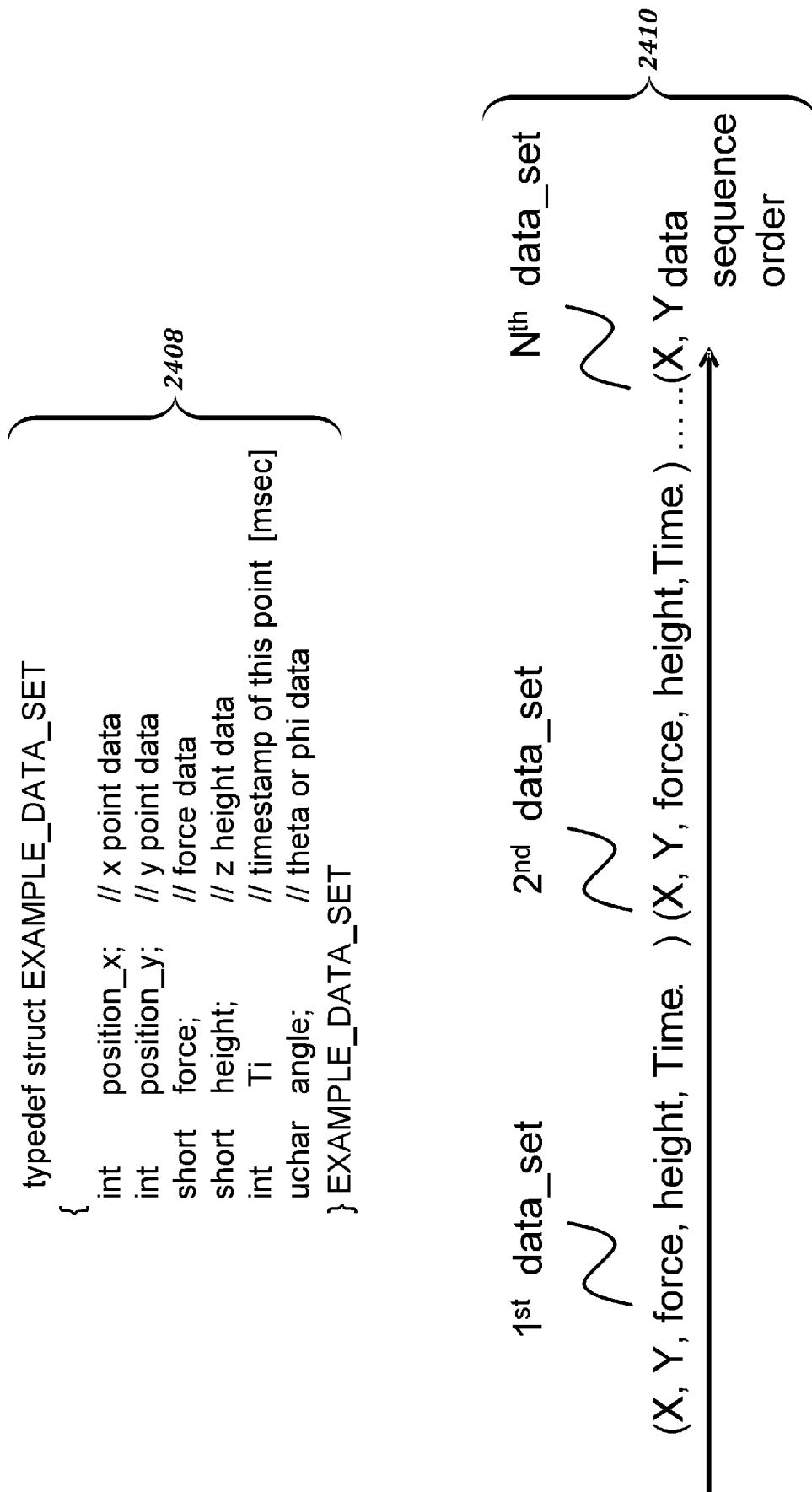
[Fig. 22]

**FIG.22.**

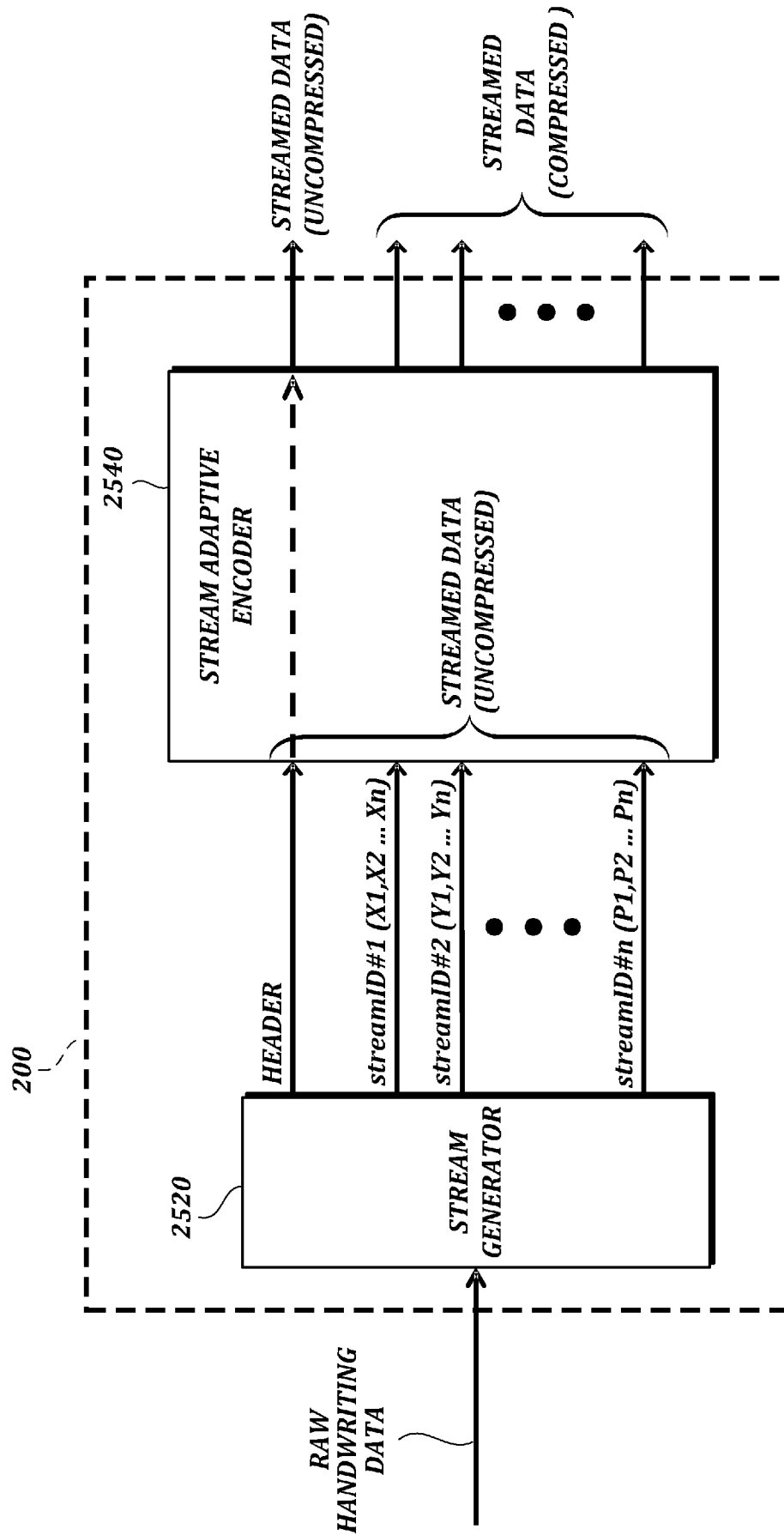
[Fig. 23]

**FIG.23.**

[Fig. 24]

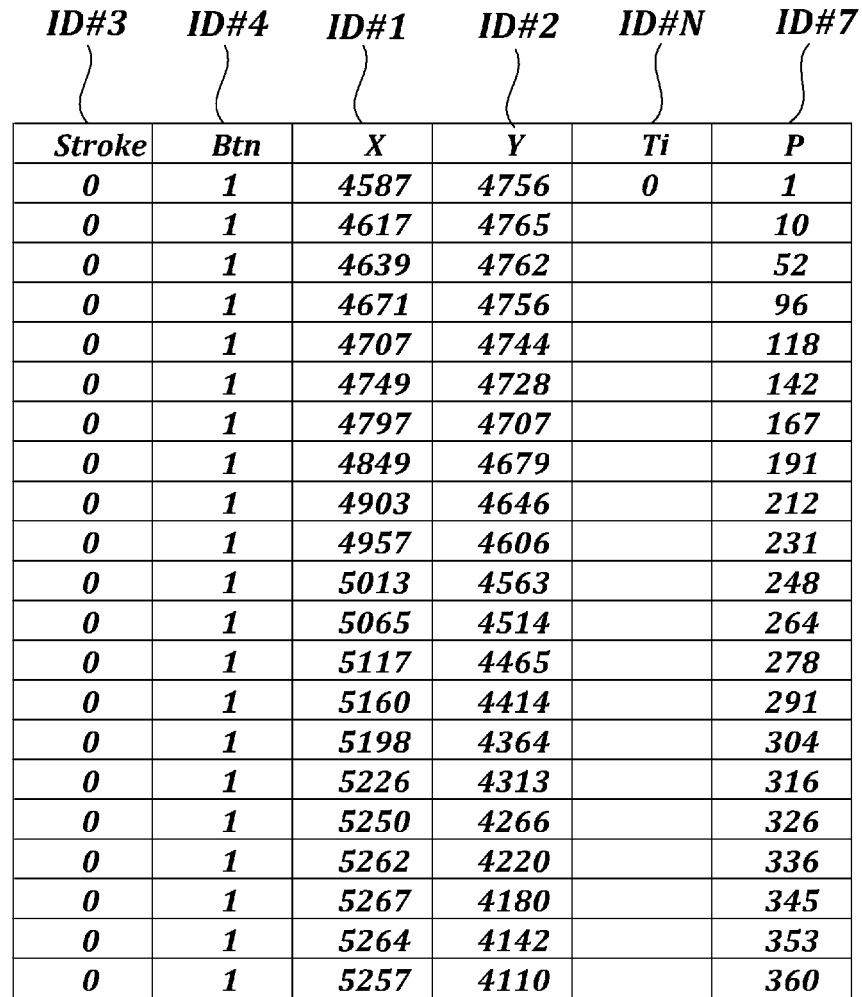
**FIG.24.**

[Fig. 25]

**FIG.25.**

[Fig. 26]

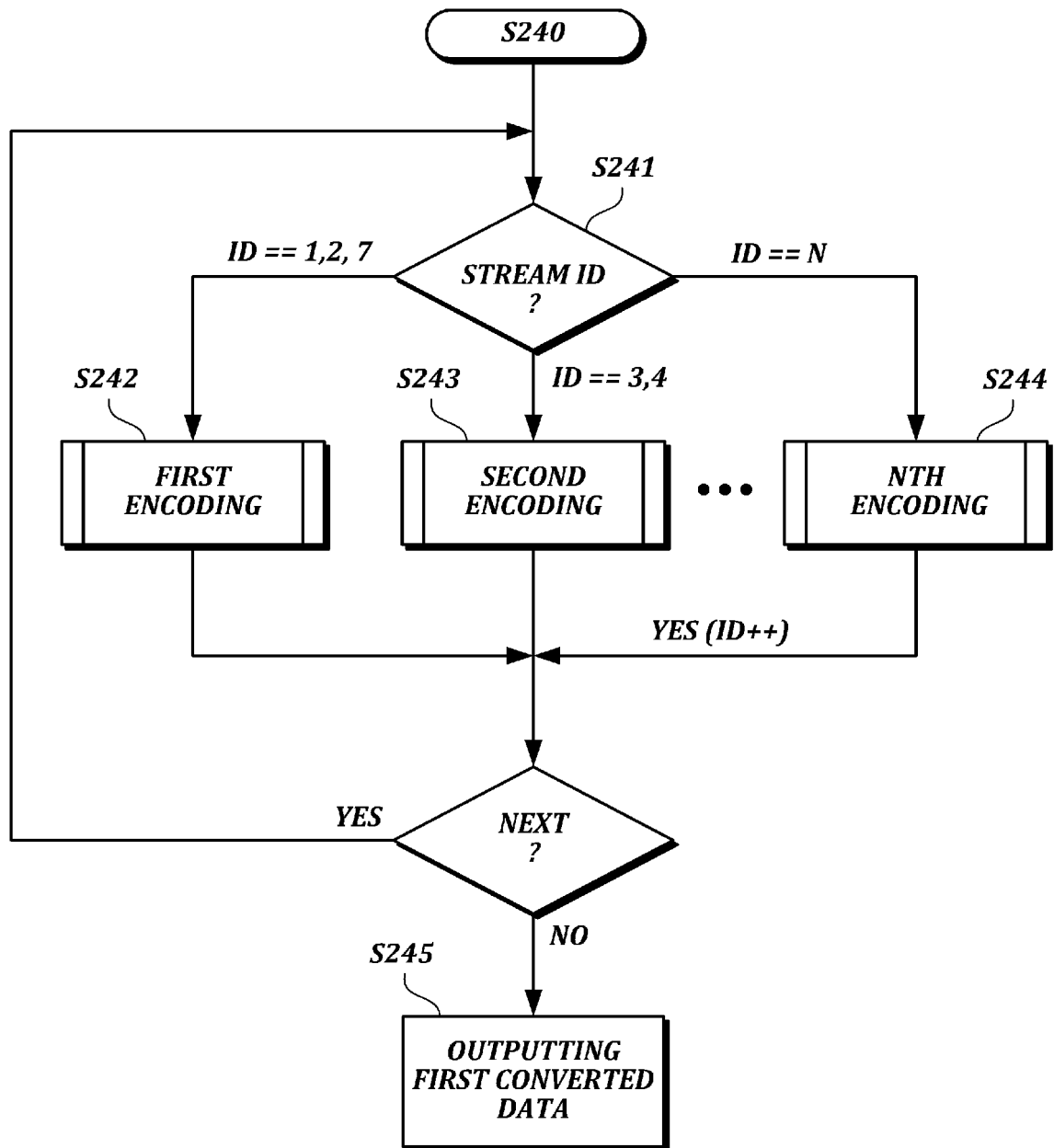
2600



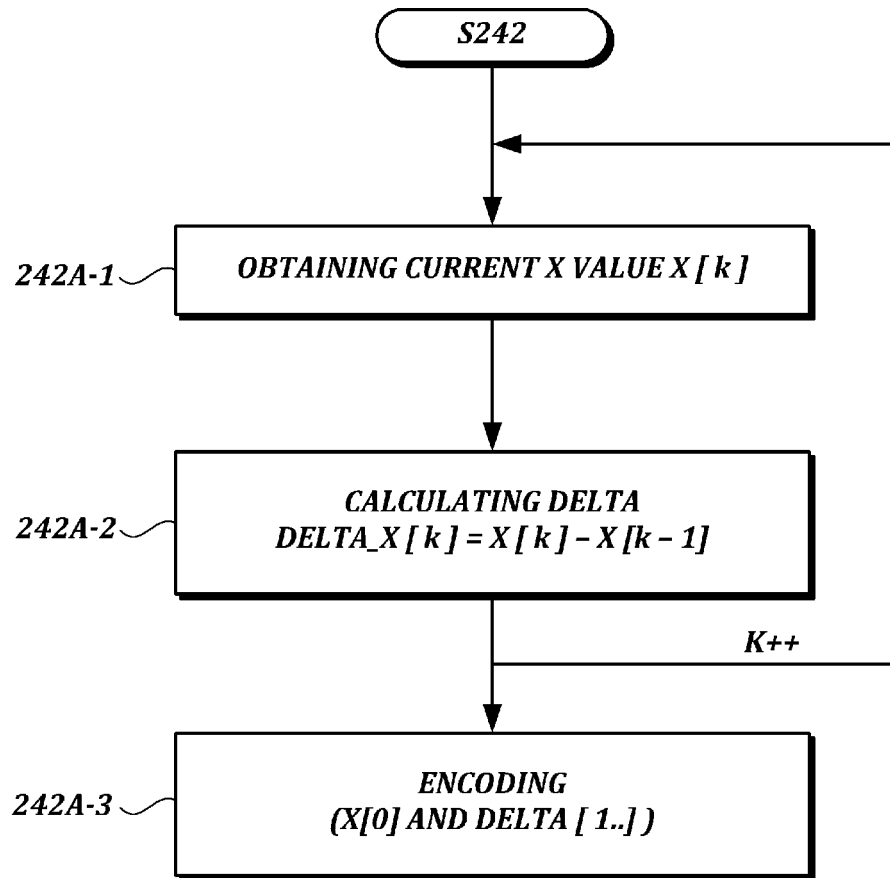
<i>Stroke</i>	<i>Btn</i>	<i>X</i>	<i>Y</i>	<i>Ti</i>	<i>P</i>
0	1	4587	4756	0	1
0	1	4617	4765		10
0	1	4639	4762		52
0	1	4671	4756		96
0	1	4707	4744		118
0	1	4749	4728		142
0	1	4797	4707		167
0	1	4849	4679		191
0	1	4903	4646		212
0	1	4957	4606		231
0	1	5013	4563		248
0	1	5065	4514		264
0	1	5117	4465		278
0	1	5160	4414		291
0	1	5198	4364		304
0	1	5226	4313		316
0	1	5250	4266		326
0	1	5262	4220		336
0	1	5267	4180		345
0	1	5264	4142		353
0	1	5257	4110		360

FIG.26.

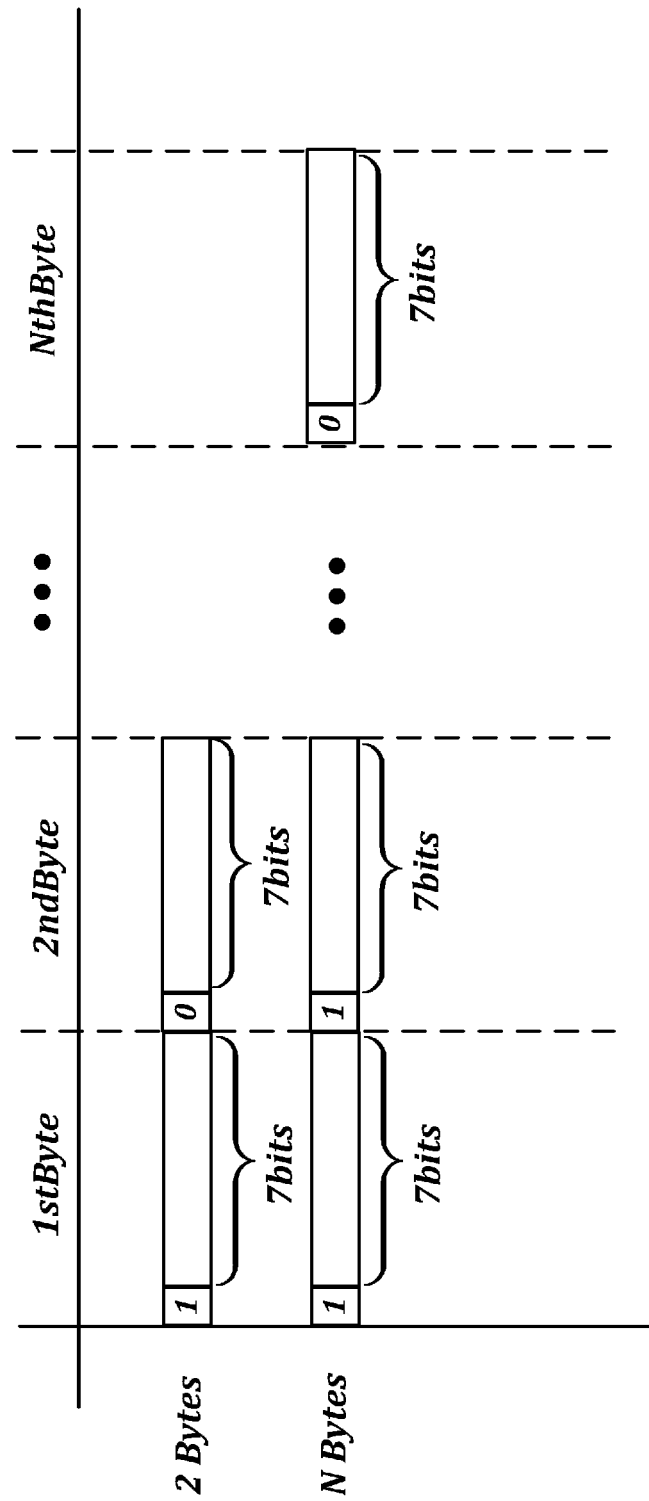
[Fig. 27]

**FIG.27.**

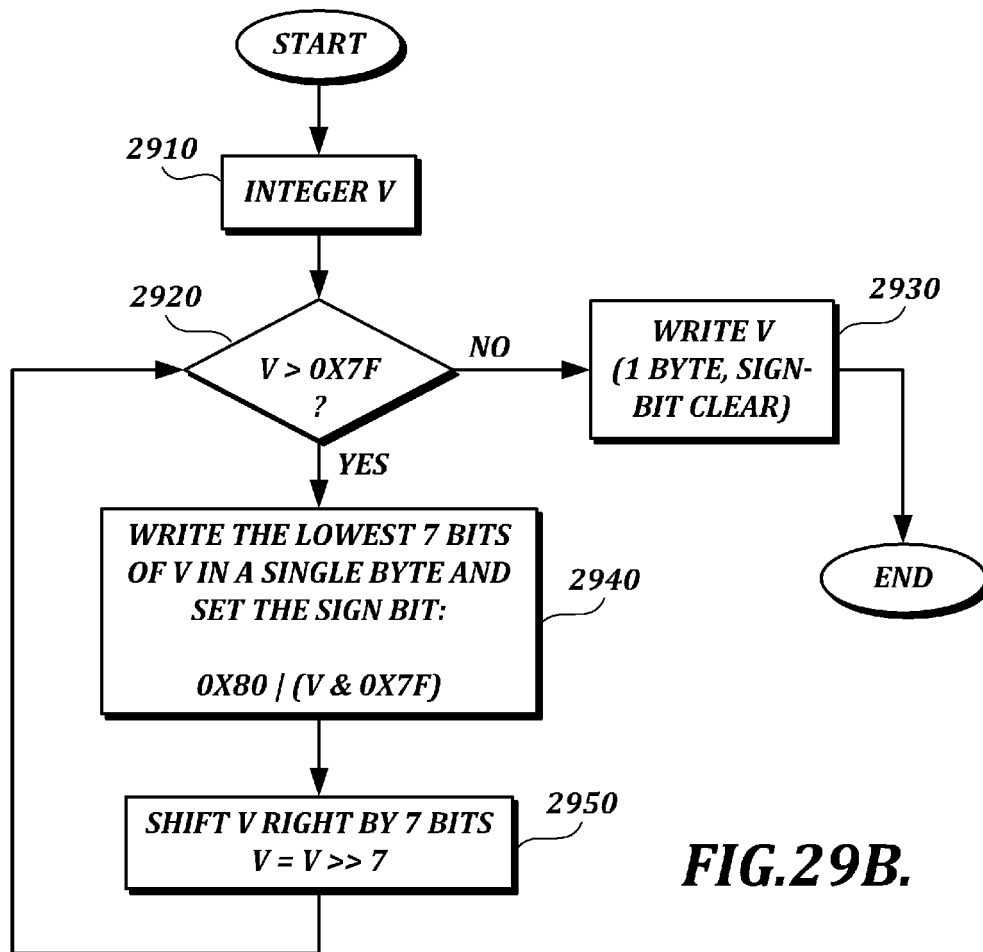
[Fig. 28]

**FIG.28.**

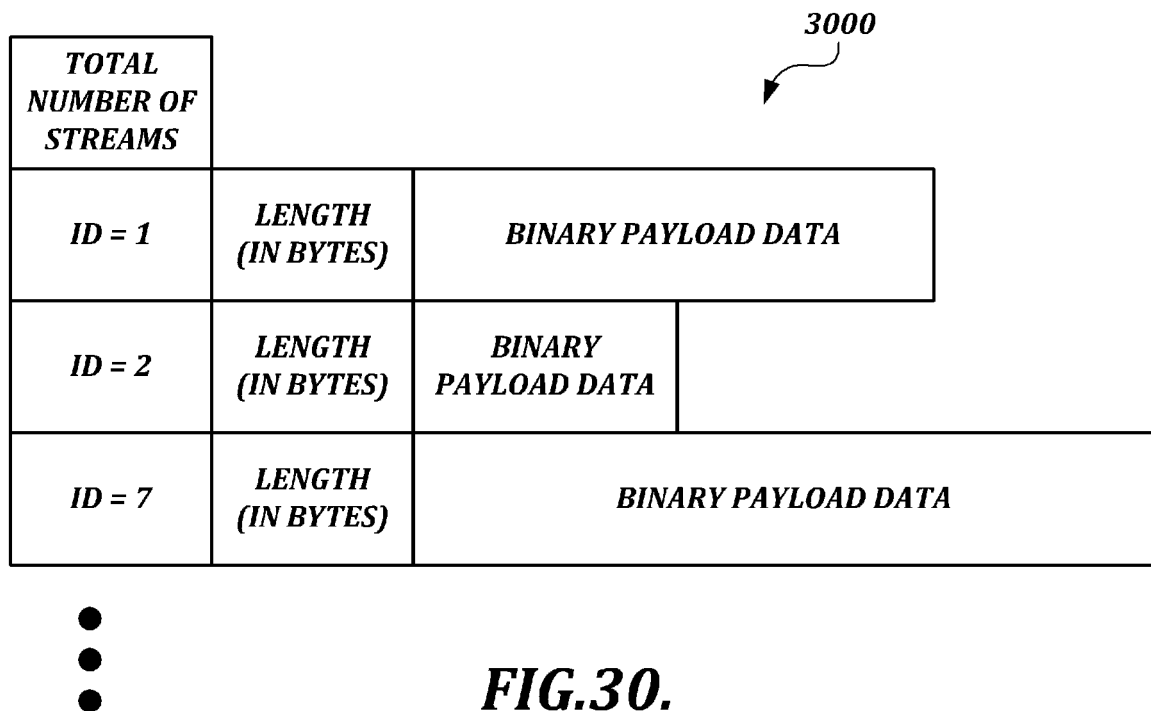
[Fig. 29A]

**FIG.29A.**

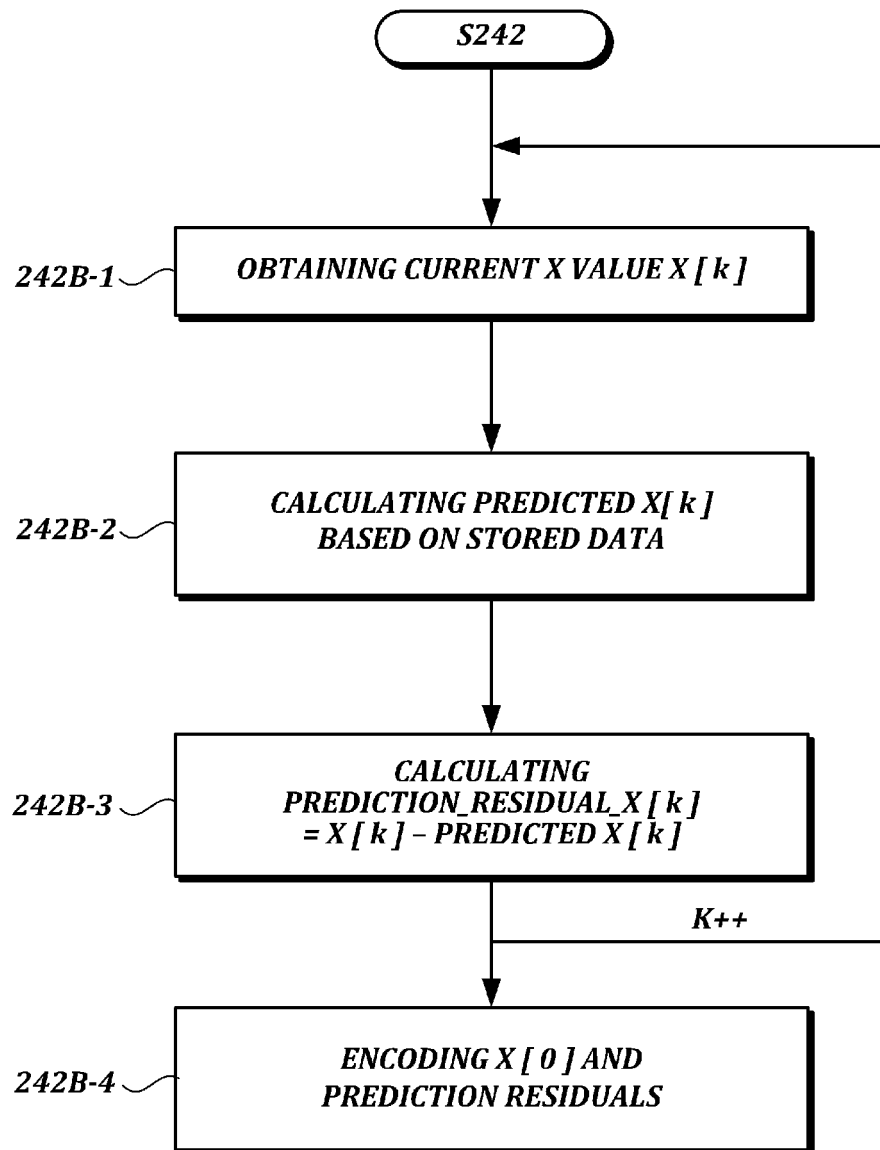
[Fig. 29B]



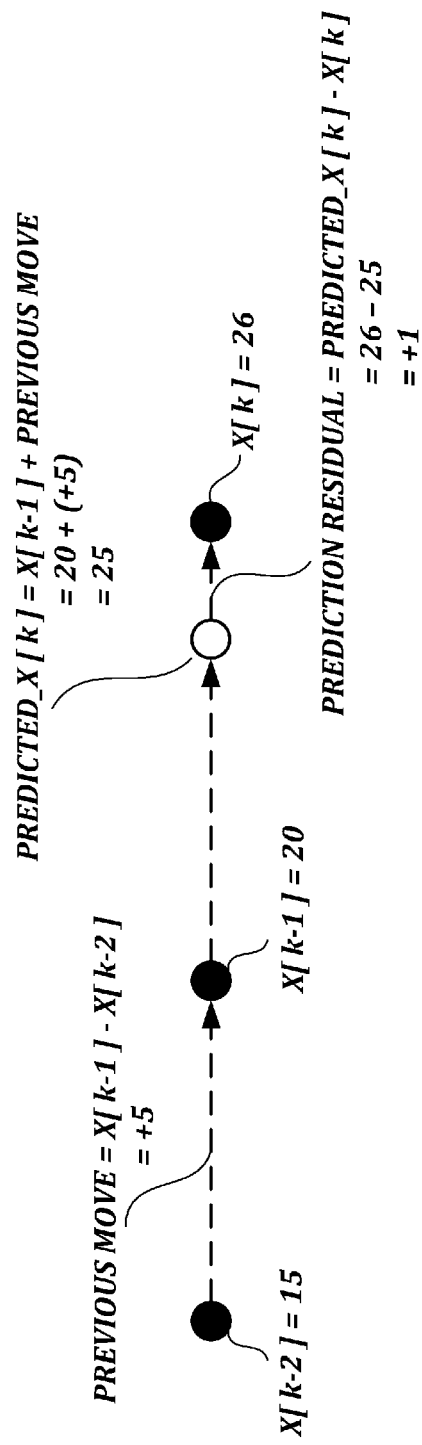
[Fig. 30]



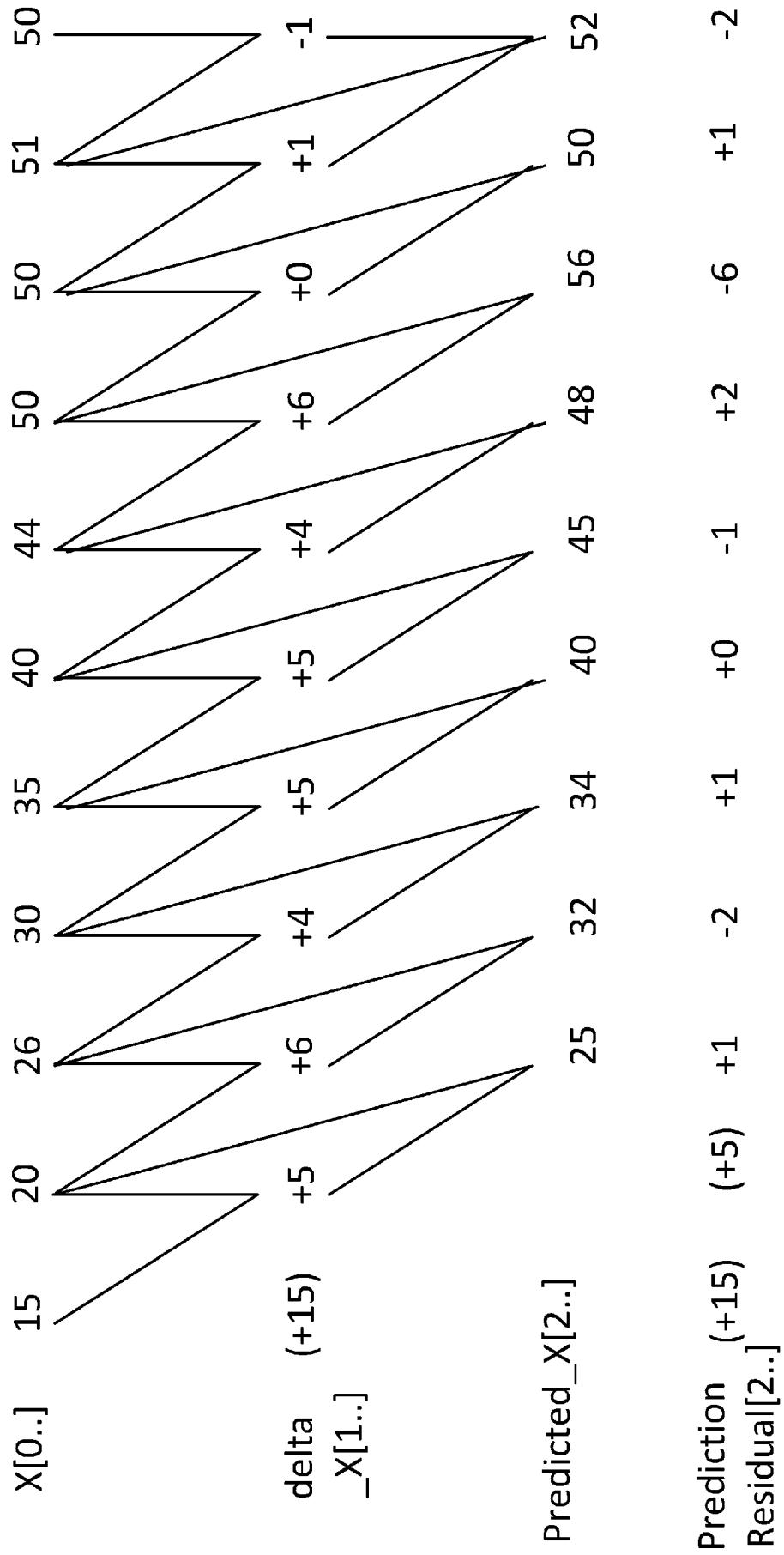
[Fig. 31]

**FIG.31.**

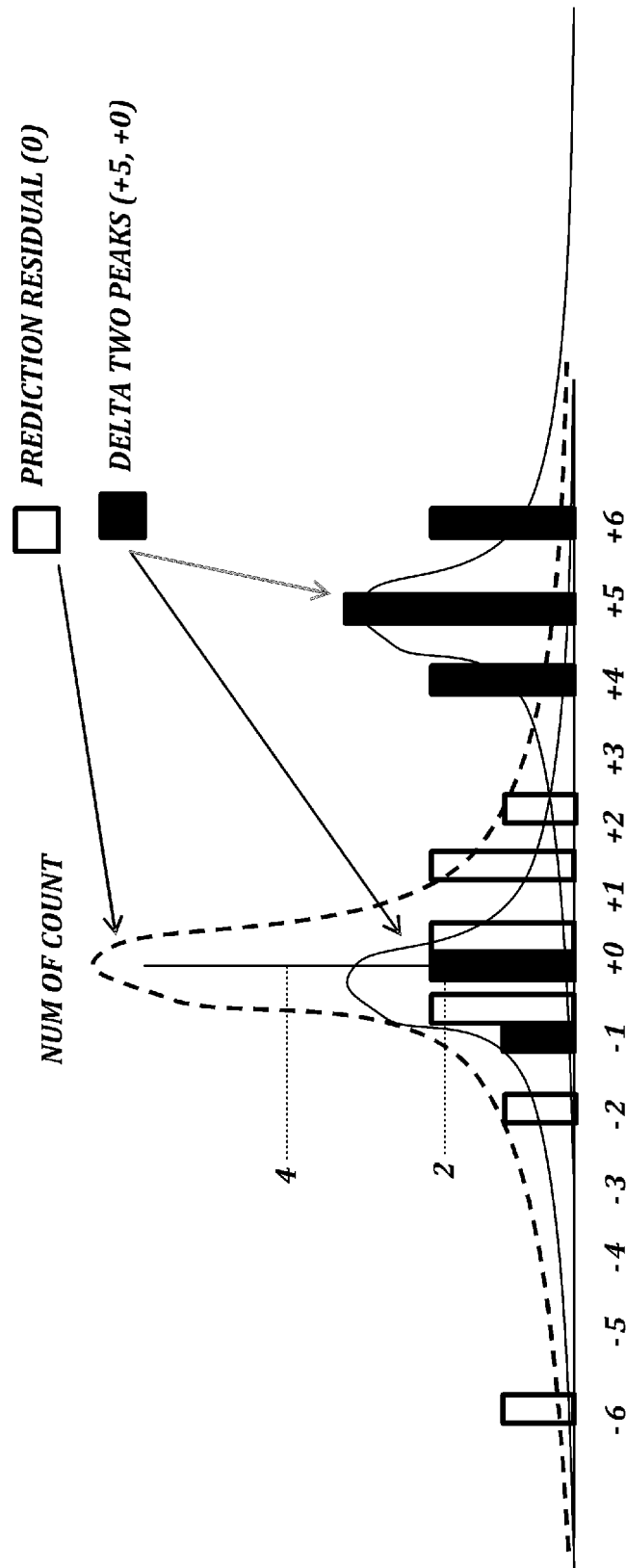
[Fig. 32]

**FIG.32.**

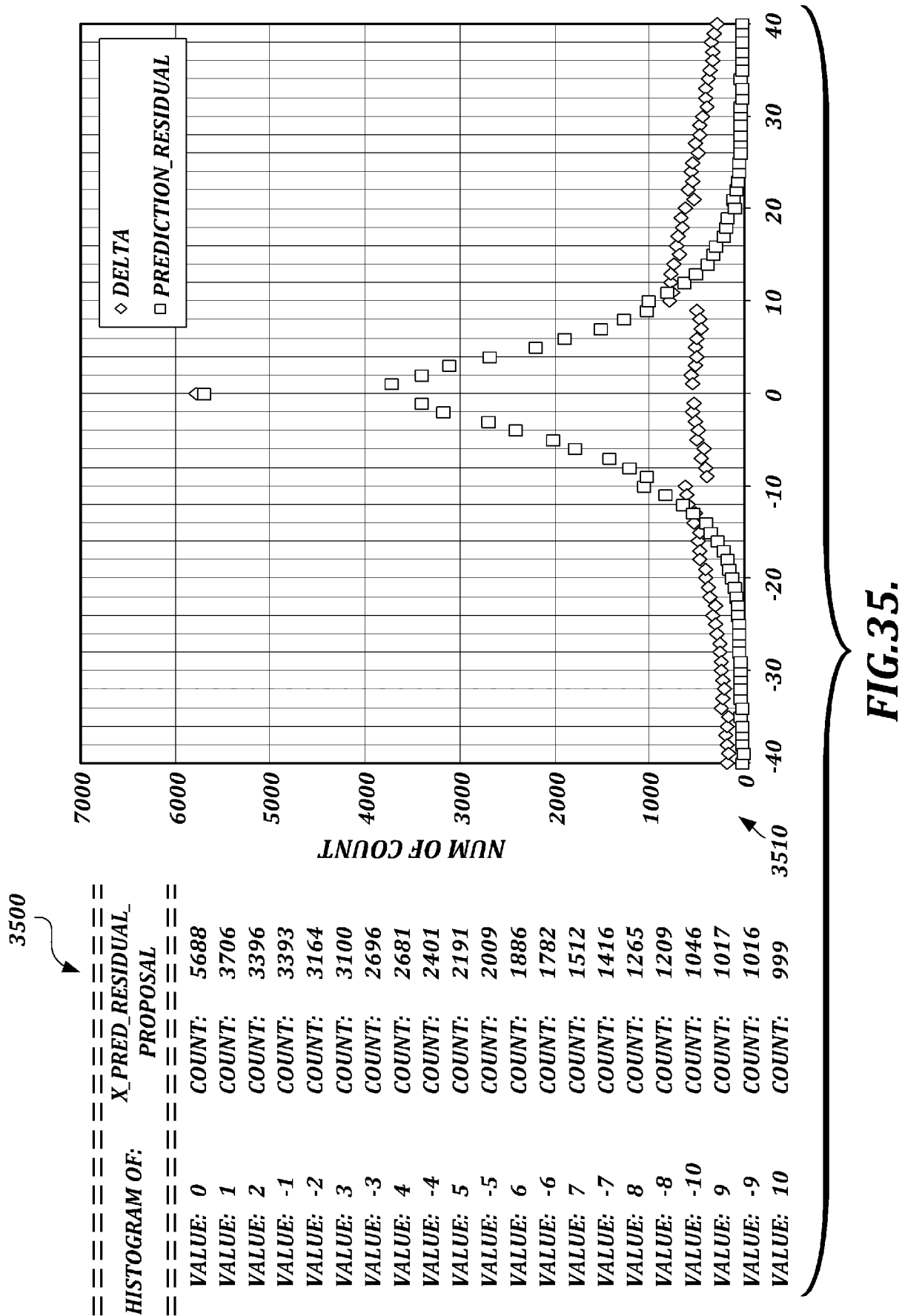
[Fig. 33]

**FIG.33.**

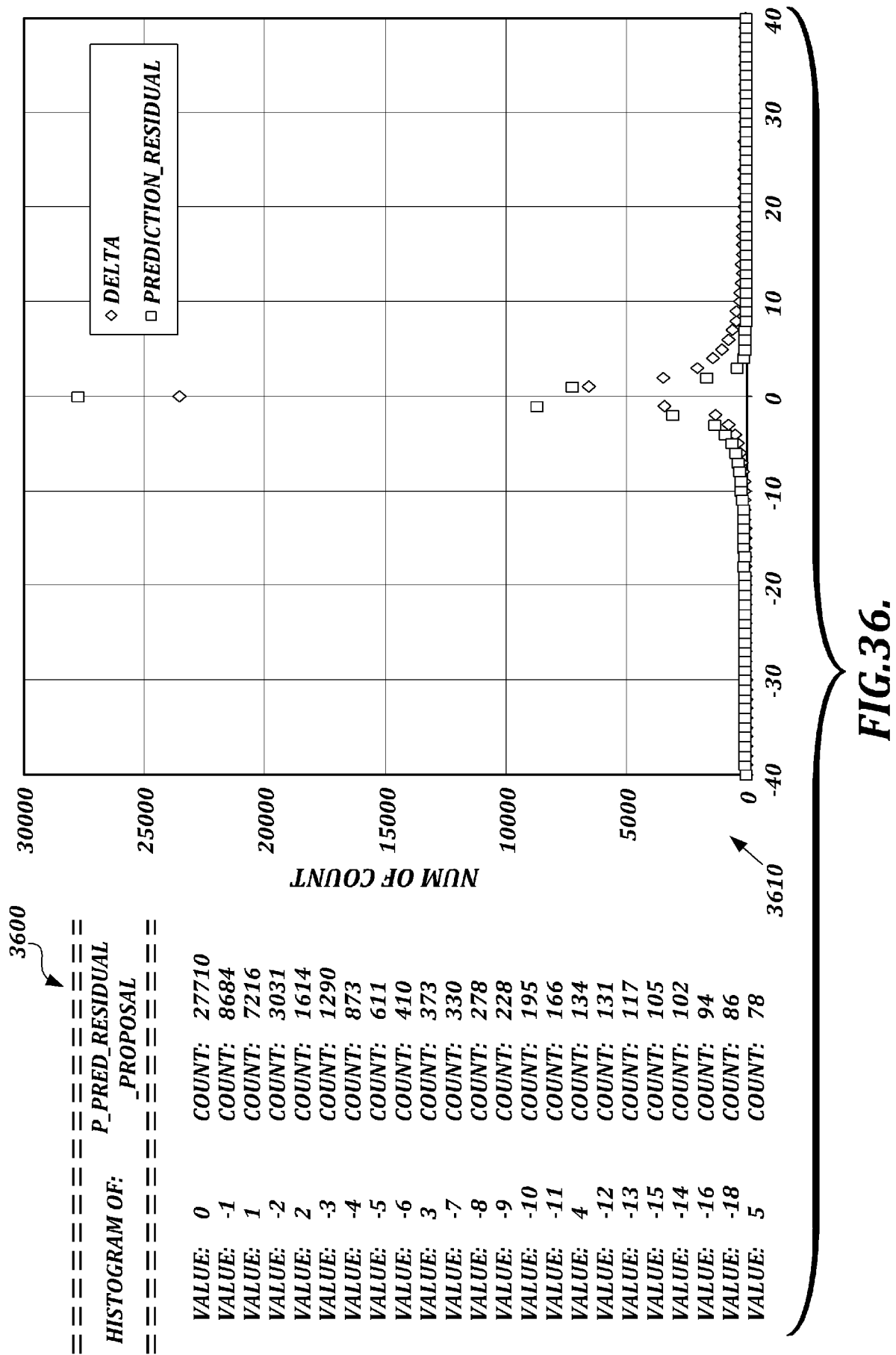
[Fig. 34]

**FIG.34.**

[Fig. 35]



[Fig. 36]



[Fig. 37]

3700
↙

	VALUE	BITSTRING	
HIGHER PROBABILITY VALUES	0	1	SHORTER BITSTRINGS ASSIGNED
	1	010	
	-1	011	
	2	00100	
	-2	00101	
	3	00110	
	-3	00111	
	4	0001000	
	-4	0001001	
	5	0001010	
	-5	0001011	
	6	0001100	
	-6	0001101	
	7	0001110	
	-7	0001111	
	8	000010000	
	-8	000010001	
	9	000010010	
	-9	000010011	
	⋮		
	100	000000011001000	
	-100	000000011001001	
	101	000000011001010	
	-101	000000011001011	
	⋮		
	1000	000000000011111010000	
	-1000	000000000011111010001	
	1001	000000000011111010010	
	-1001	000000000011111010011	

FIG.37.

[Fig. 38]

3800


<i>X</i>	<i>X_delta</i>	<i>X_prediction_esidue</i>	<i>X_pred_residual_ExpGolomb</i>	<i>X_number_of_bits</i>
4587	4587	4587	000000000000010001111010110	27
4617	30	-4557	000000000000010001110011011	27
4639	22	-8	000010001	9
4671	32	10	000010100	9
4707	36	4	0001000	7
4749	42	6	0001100	7
4797	48	6	0001100	7
4849	52	4	0001000	7
4903	54	2	00100	5
4957	54	0	1	1
5013	56	2	00100	5
5065	52	-4	0001001	7
5117	52	0	1	1
5160	43	-9	000010011	9
5198	38	-5	0001011	7
5226	28	-10	000010101	9
5250	24	-4	0001001	7
5262	12	-12	000011001	9
5267	5	-7	0001111	7
5264	-3	-8	000010001	9
5257	-7	-4	0001001	7
5244	-13	-6	0001101	7
5230	-14	-1	011	3
5213	-17	-3	00111	5
5194	-19	-2	00101	5
5174	-20	-1	011	3
5154	-20	0	1	1

FIG.38.

[Fig. 39]

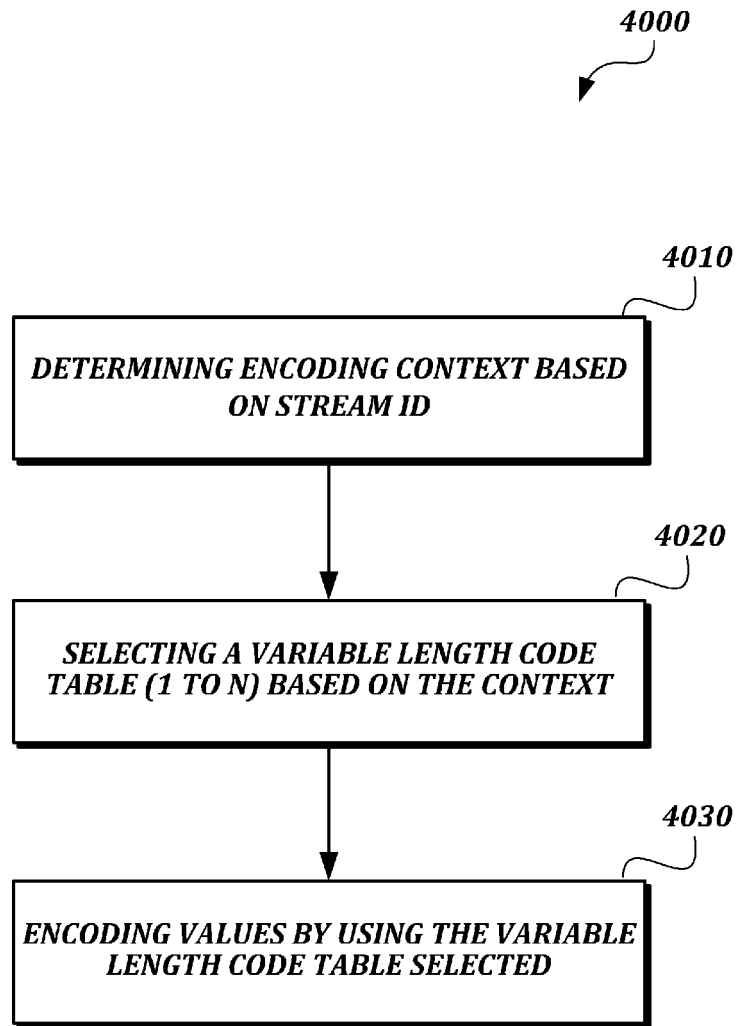
3900



<i>P</i>	<i>P_delta</i>	<i>P_prediction_residual</i>	<i>P_pred_residual_ExpGolomb</i>	<i>P_number_of_bits</i>
1	1	1	010	3
10	9	8	000010000	9
52	42	33	0000001000010	13
96	44	2	00100	5
118	22	-22	00000101101	11
142	24	2	00100	5
167	25	1	010	3
191	24	-1	011	3
212	21	-3	00111	5
231	19	-2	00101	5
248	17	-2	00101	5
264	16	-1	011	3
278	14	-2	00101	5
291	13	-1	011	3
304	13	0	1	1
316	12	-1	011	3
326	10	-2	00101	5
336	10	0	1	1
345	9	-1	011	3
353	8	-1	011	3
360	7	-1	011	3
365	5	-2	00101	5
369	4	-1	011	3
372	3	-1	011	3
375	3	0	1	1
376	1	-2	00101	5
377	1	0	1	1

FIG.39.

[Fig. 40]

***FIG.40.***

[Fig. 41A]

4100
↙

<i>VARIABLE LENGTH CODE TABLE</i>	
<i>VALUE</i>	<i>BITSTRING</i>
<i>0</i>	<i>1</i>
<i>+1</i>	<i>0 1 0</i>
<i>+2</i>	<i>0 1 1</i>
<i>+3</i>	<i>0 0 1 0 0</i>
<i>+4</i>	<i>0 0 1 0 1</i>
<i>⋮</i>	<i>⋮</i>
<i>-1</i>	<i>0 0 0 0 1 0 0 0 0 1</i>
<i>-2</i>	
<i>⋮</i>	
	<i>0 0 0 0 0 0 ... 1 ..0 0 0 0 1</i>

*RIGHT MOVE
PRIORITIZED**LEFT MOVE***FIG.41A.**

[Fig. 41B]

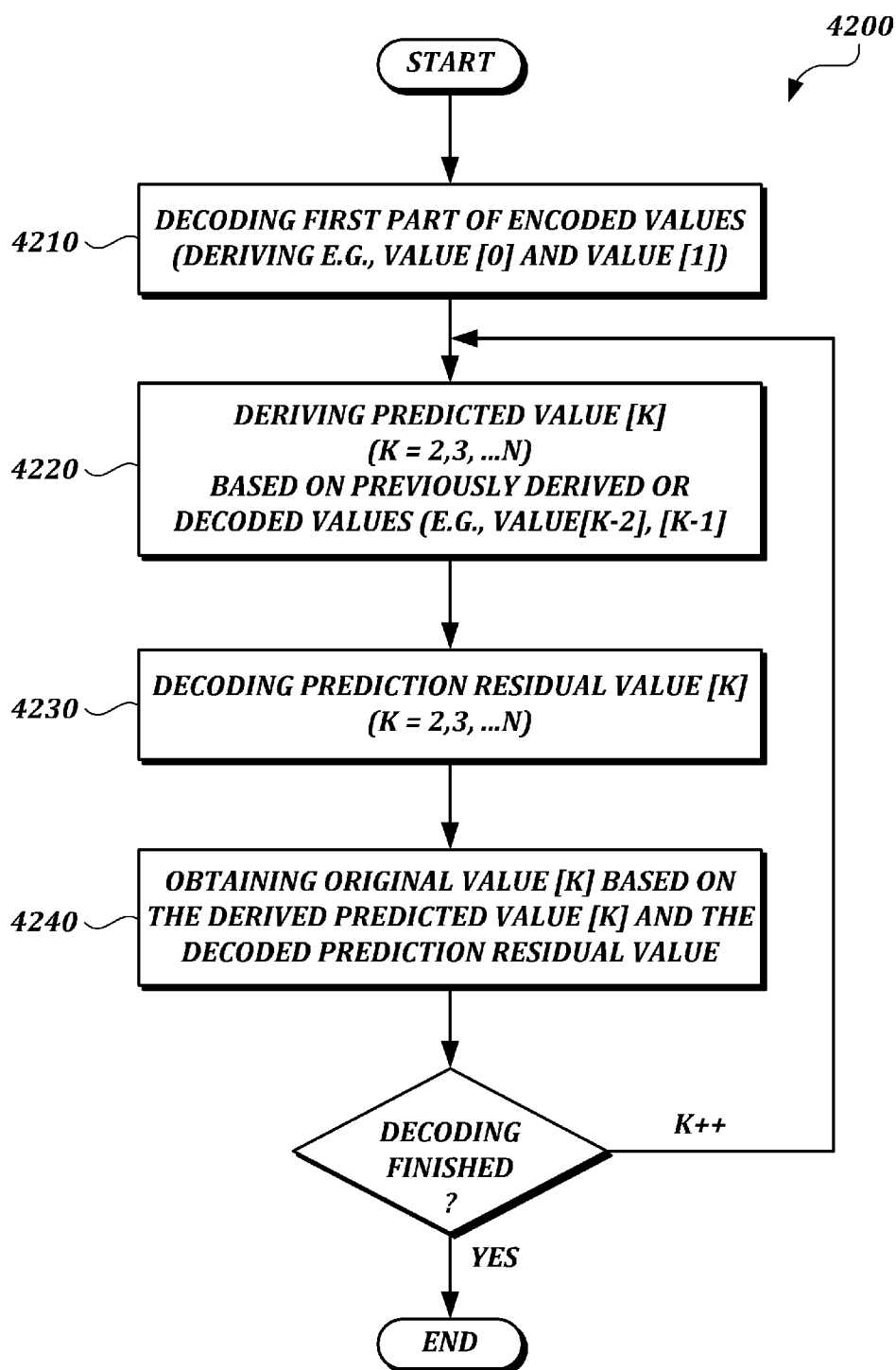
4110
↙

**VARIABLE LENGTH CODE TABLE
(FOR ARABIC)**

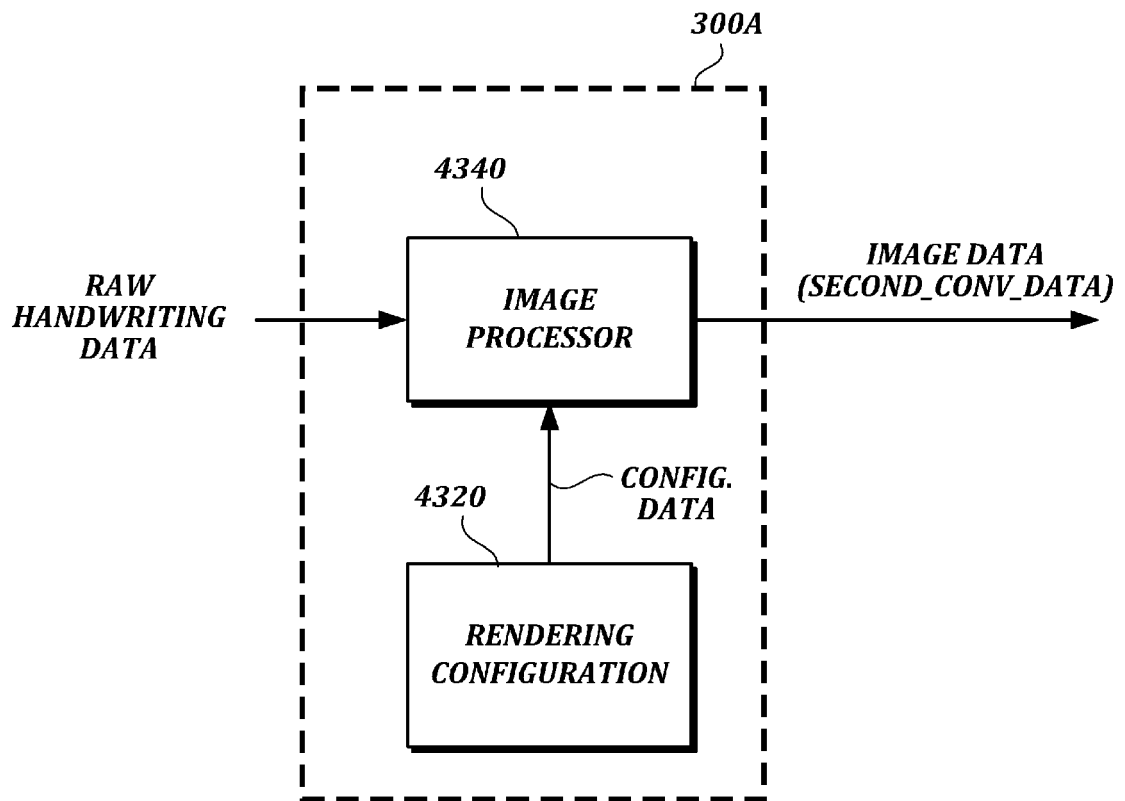
	VALUE	BITSTRING
LEFT MOVE (SHORTER)	0	1
	+1	0 1 0
	+2	0 1 1
	+3	0 0 1 0 0
	+4	0 0 1 0 1
	⋮	⋮
RIGHT MOVE	-1	0 0 0 0 1 0 0 0 0 1
	-2	
	⋮	
		0 0 0 0 0 0 ... 1 ..0 0 0 0 1

FIG.41B.

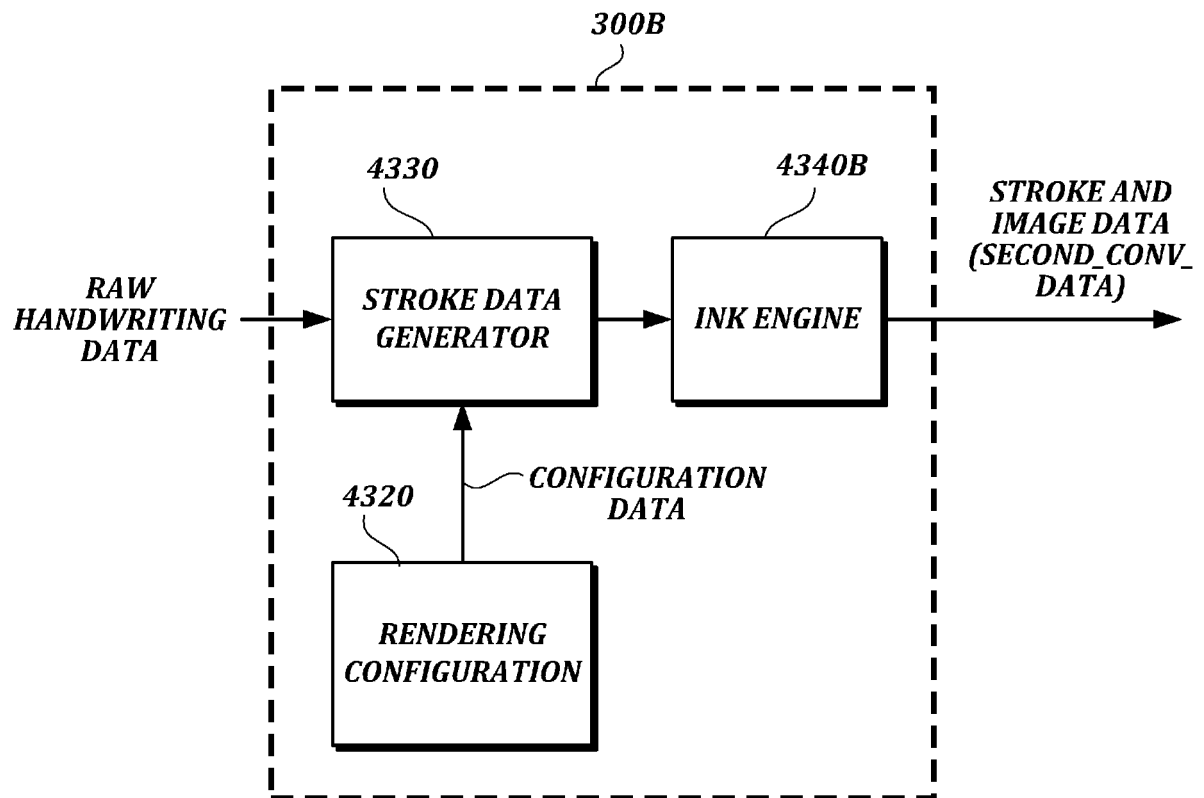
[Fig. 42]

**FIG.42.**

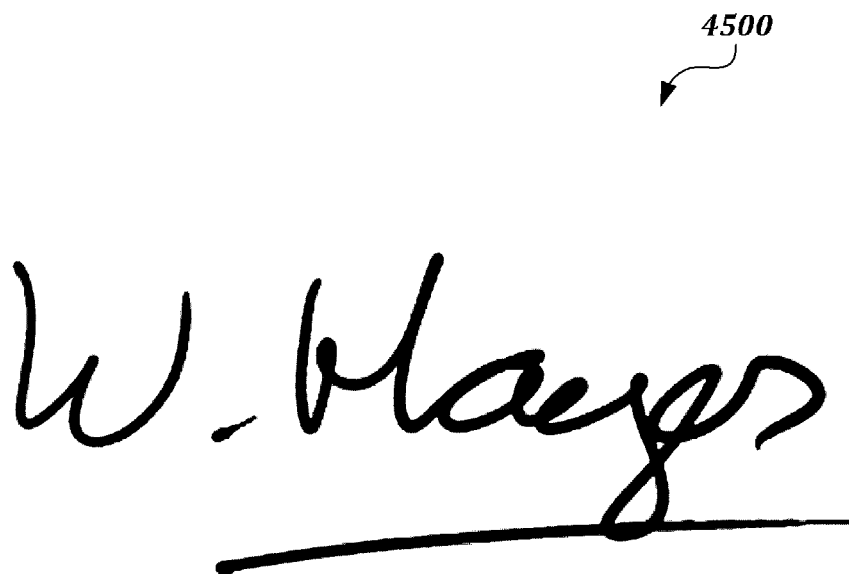
[Fig. 43]

**FIG.43.**

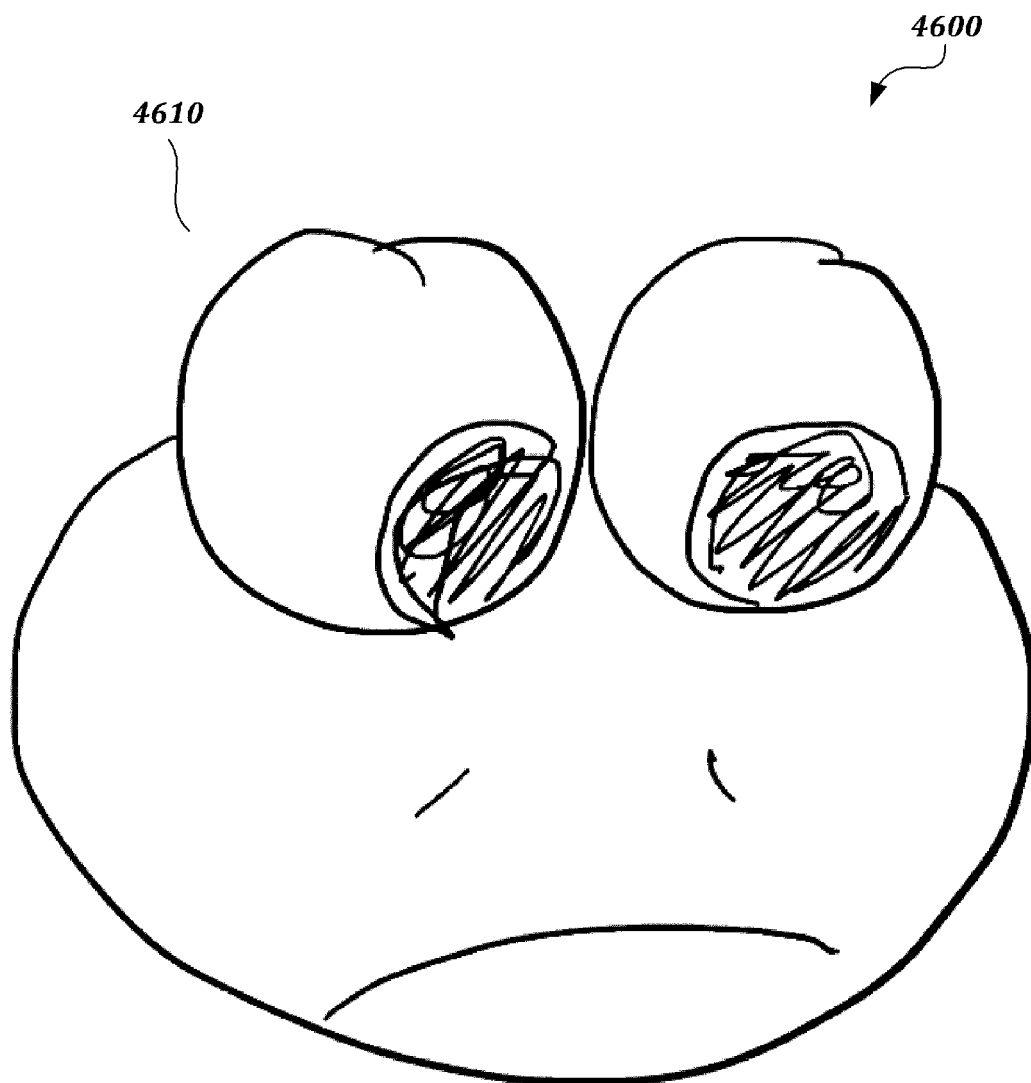
[Fig. 44]

**FIG.44.**

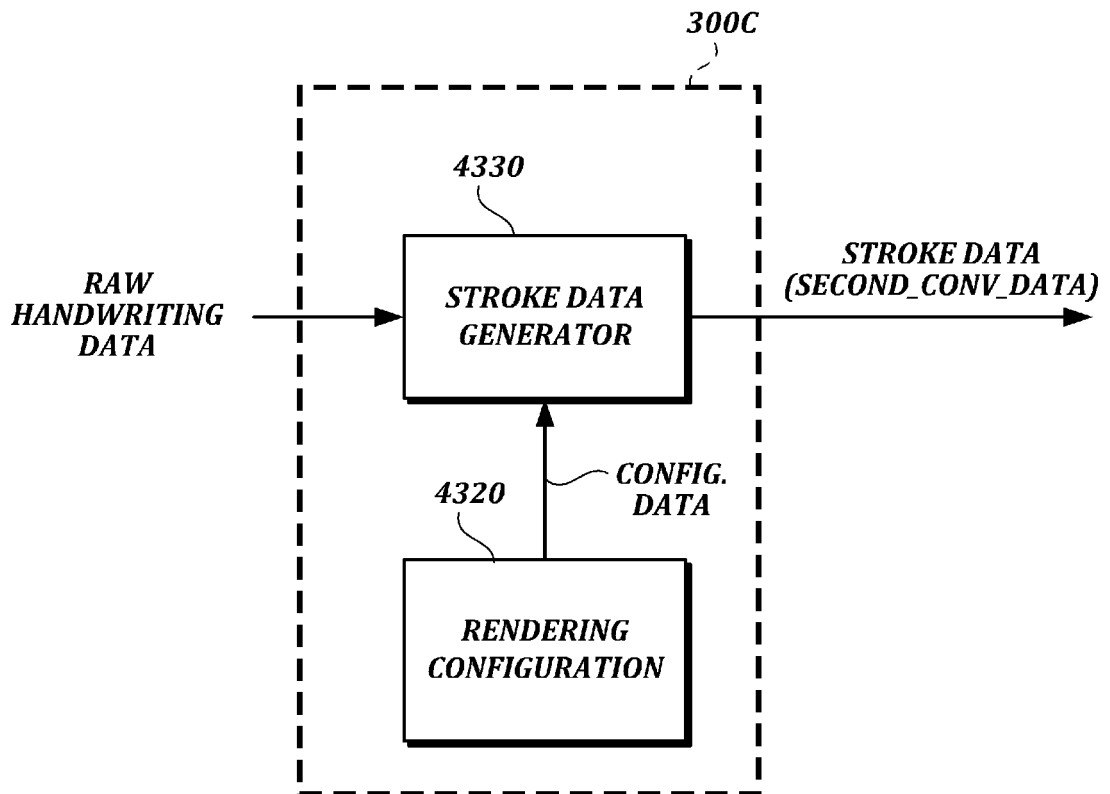
[Fig. 45]

**FIG.45.**

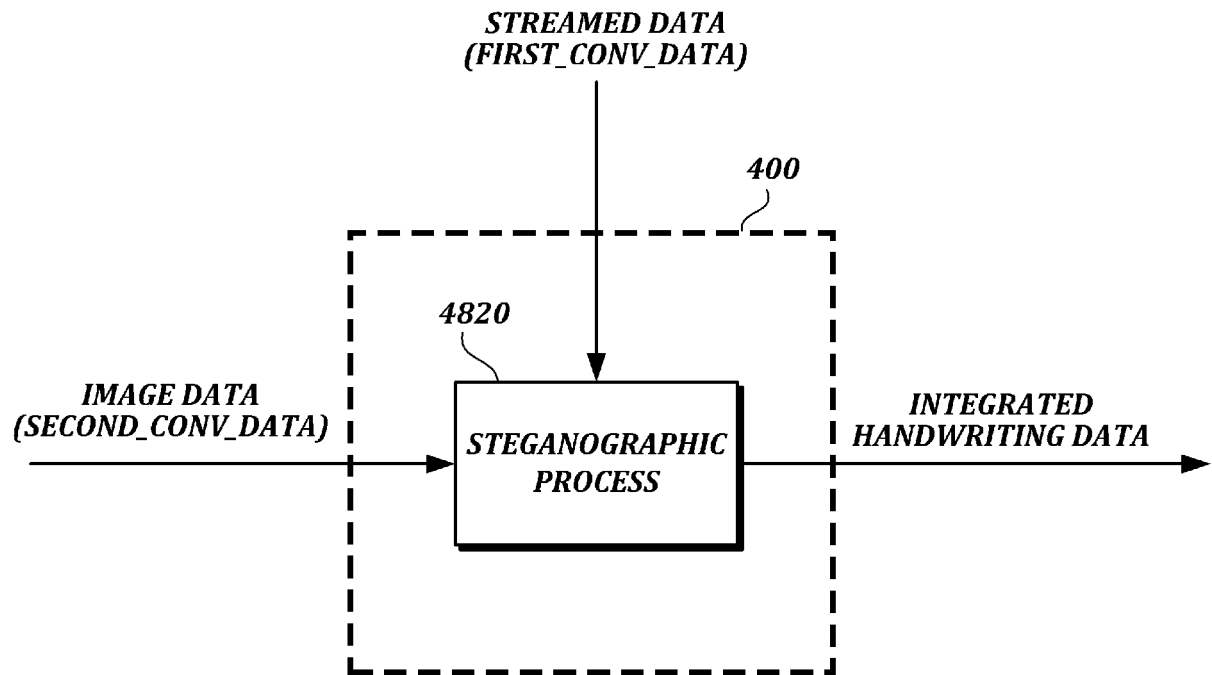
[Fig. 46]

**FIG.46.**

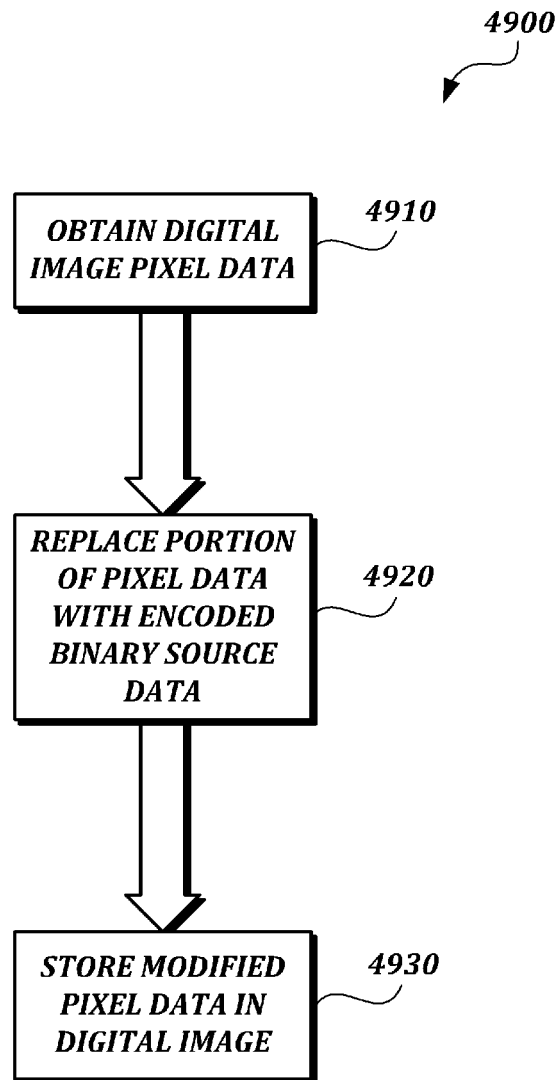
[Fig. 47]

**FIG.47.**

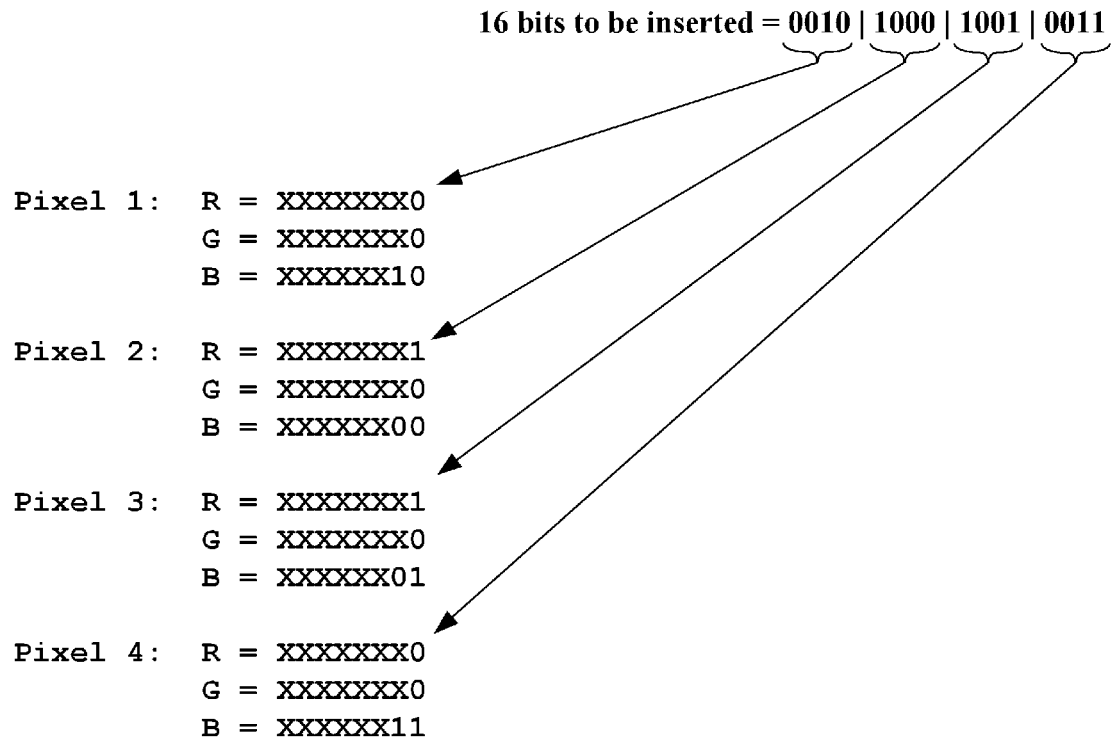
[Fig. 48]

**FIG.48.**

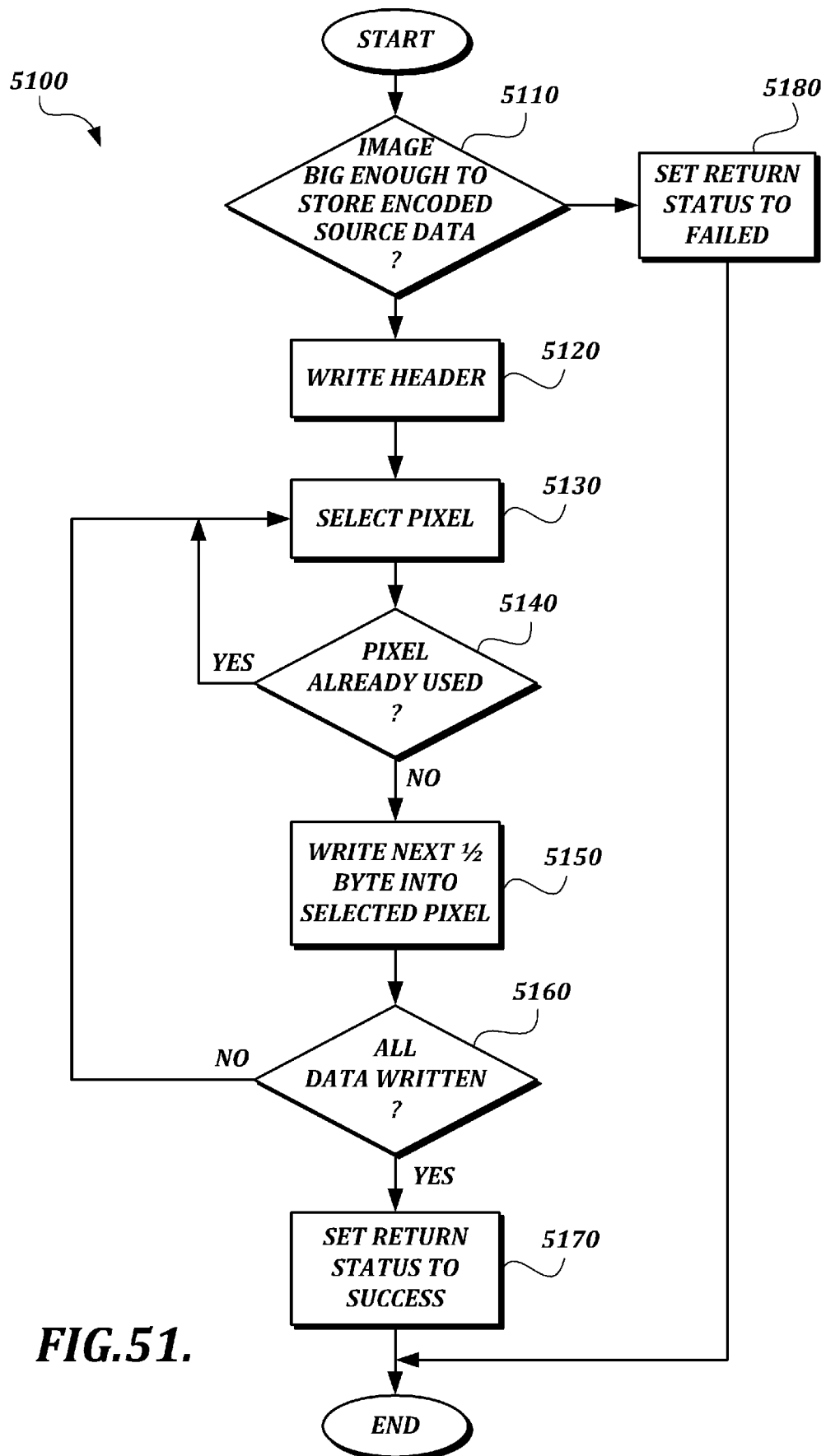
[Fig. 49]

**FIG.49.**

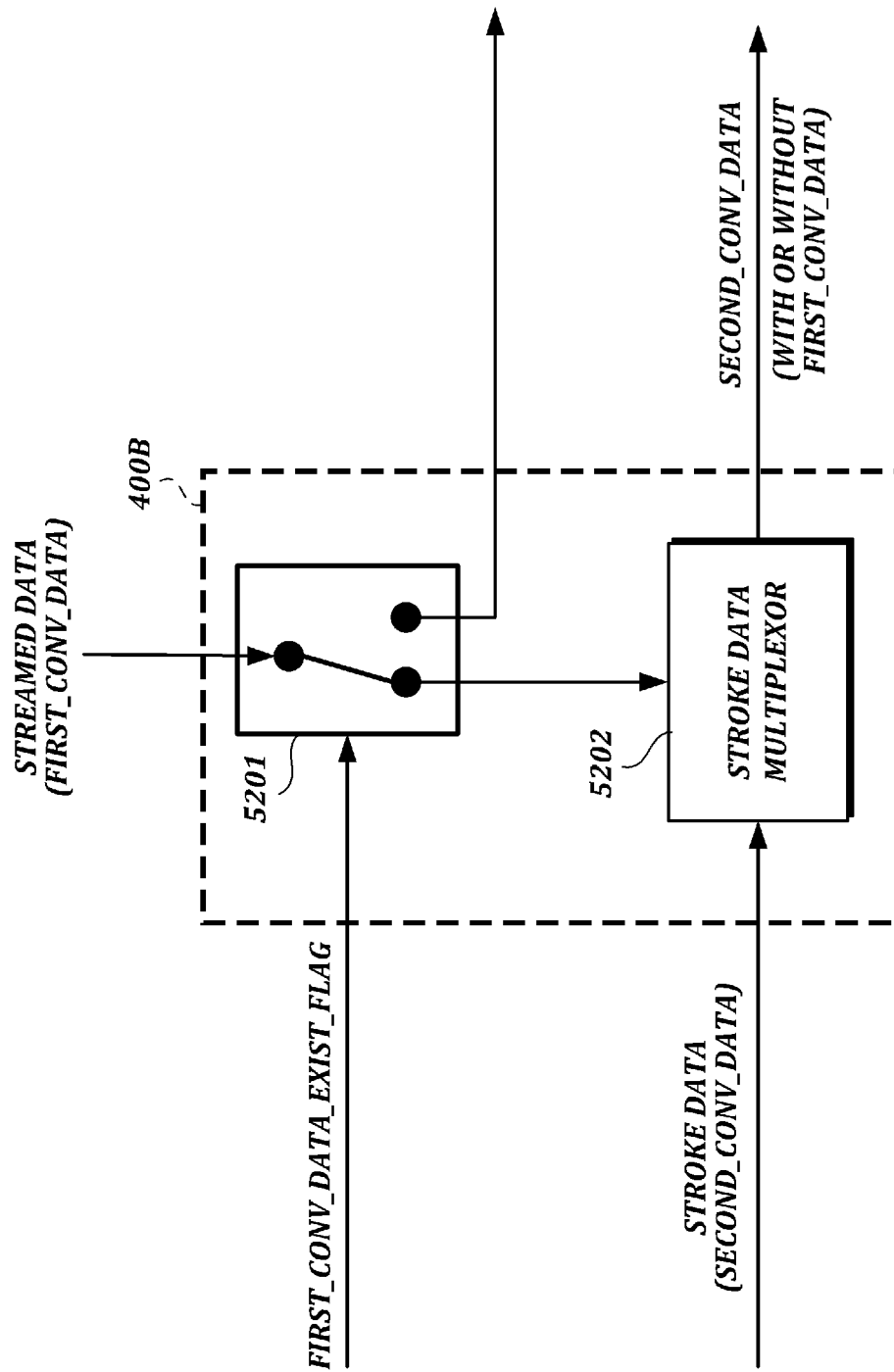
[Fig. 50]

**FIG.50.**

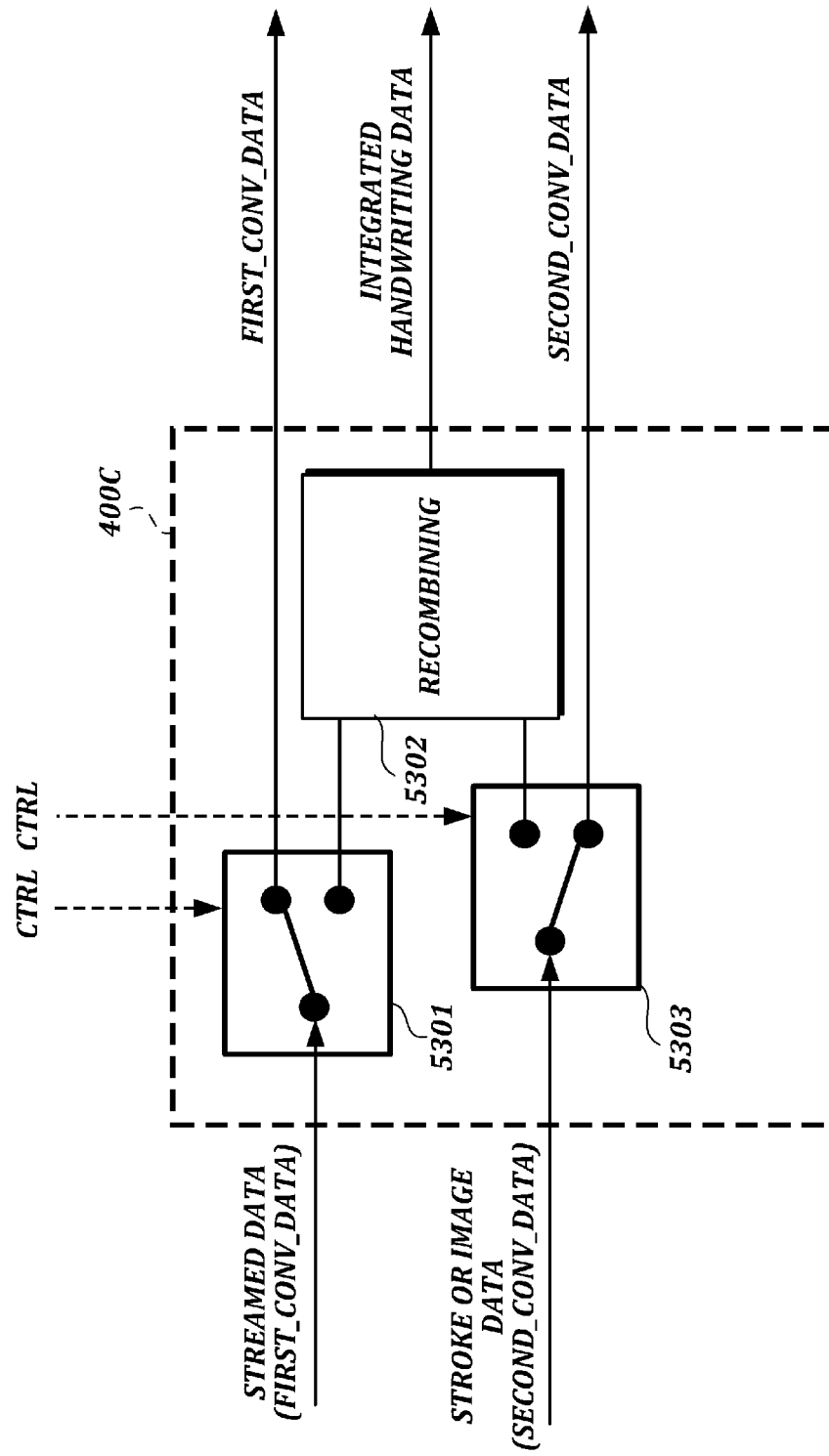
[Fig. 51]



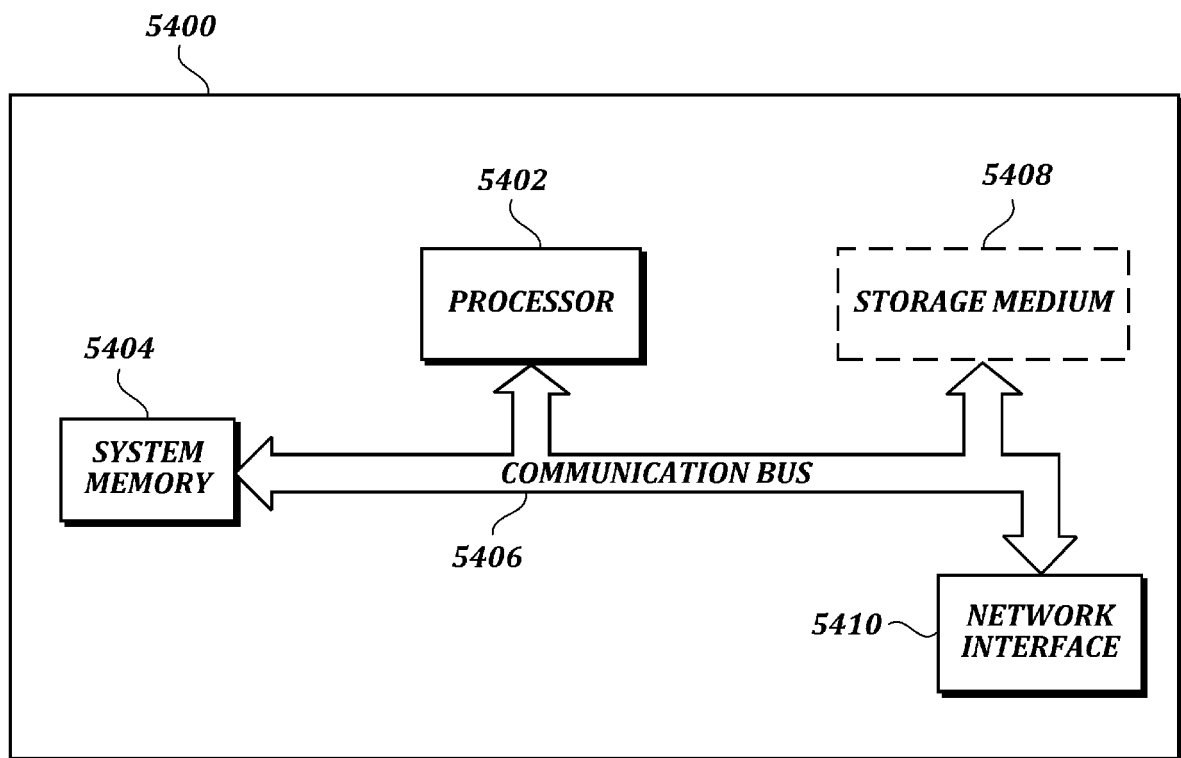
[Fig. 52]

**FIG.52.**

[Fig. 53]

**FIG.53.**

[Fig. 54]

**FIG.54.**