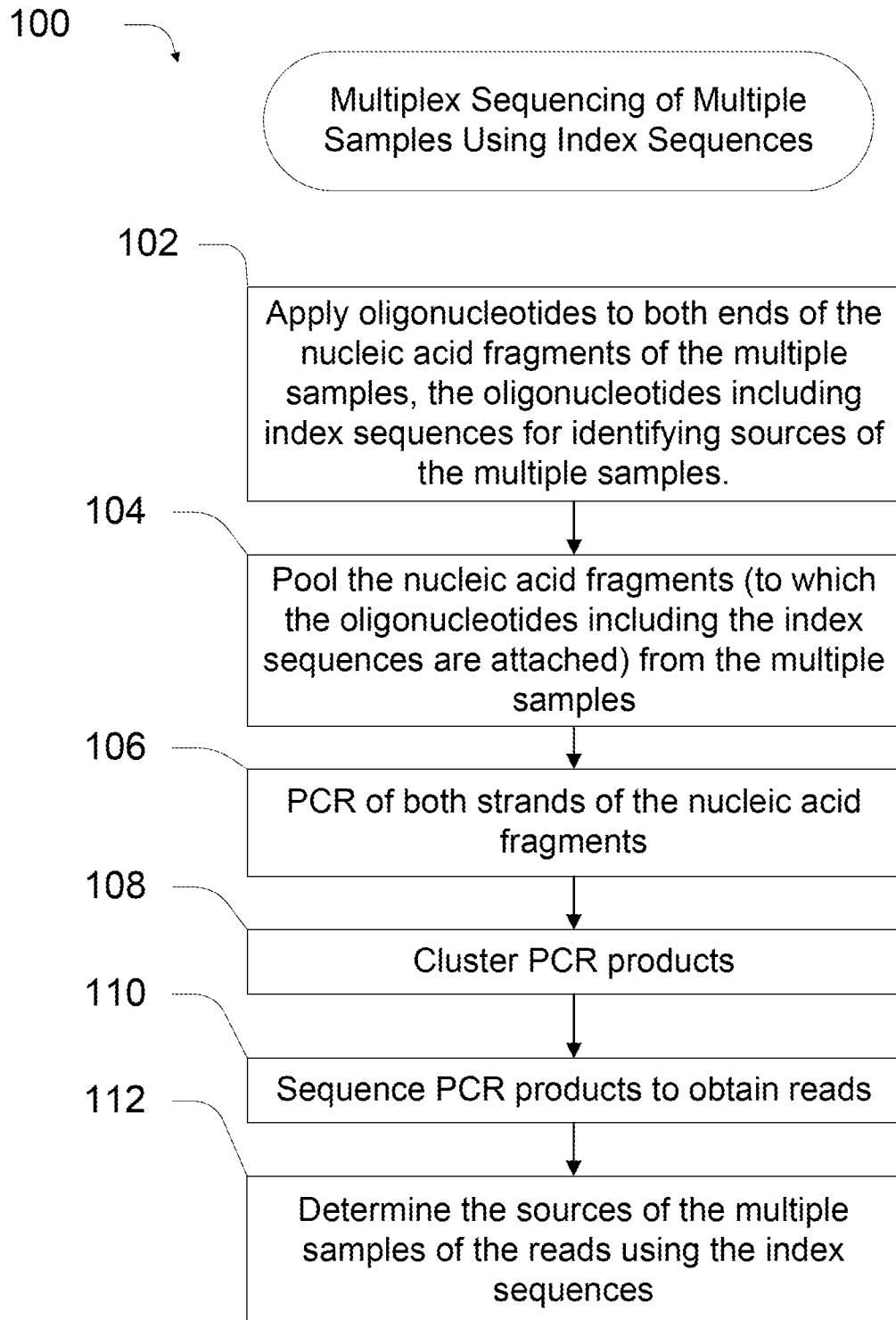
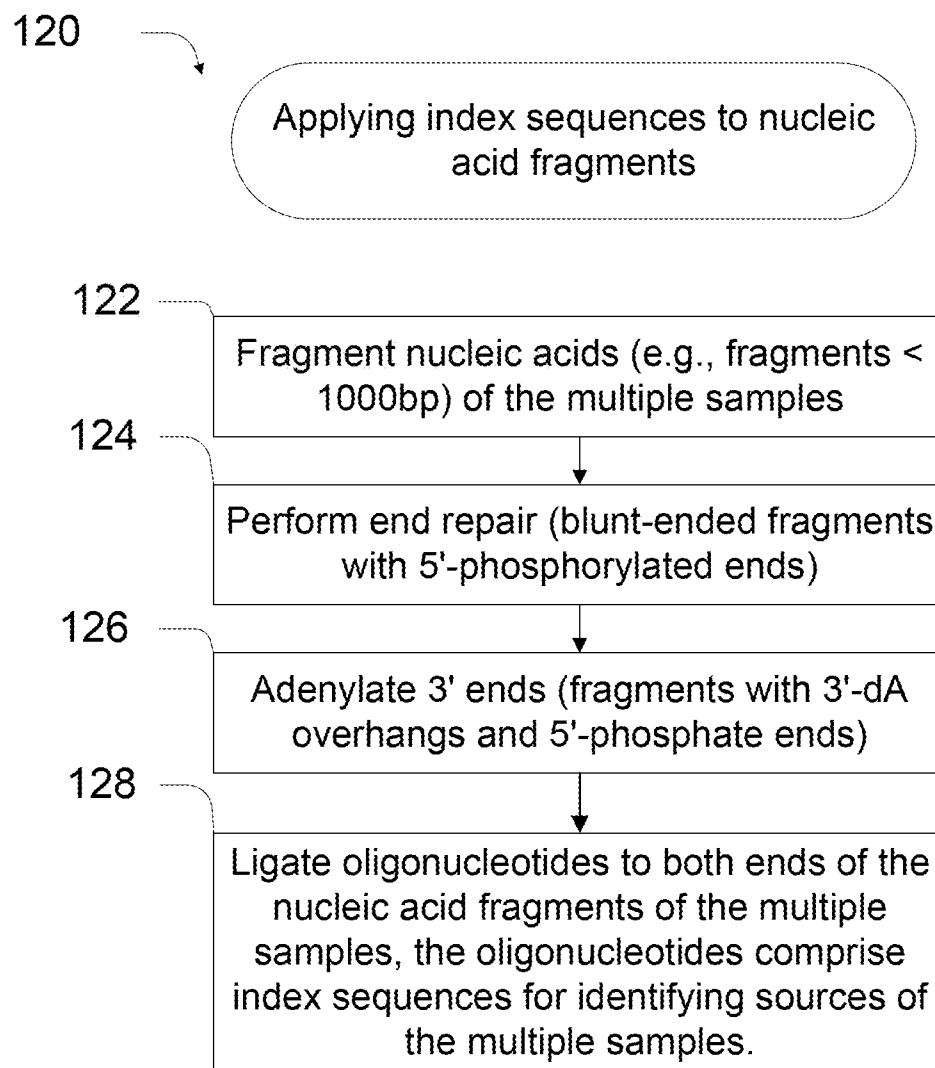
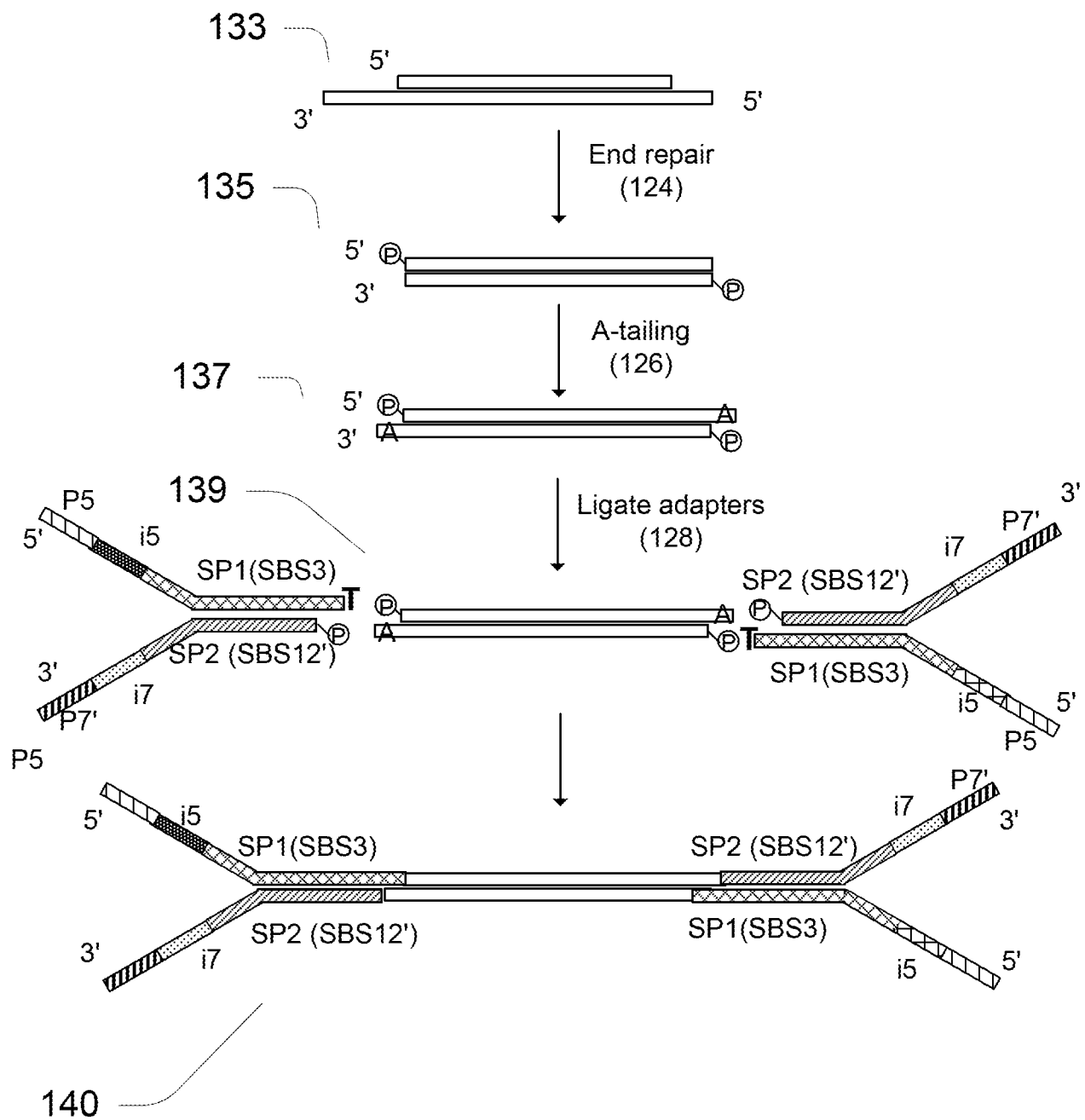
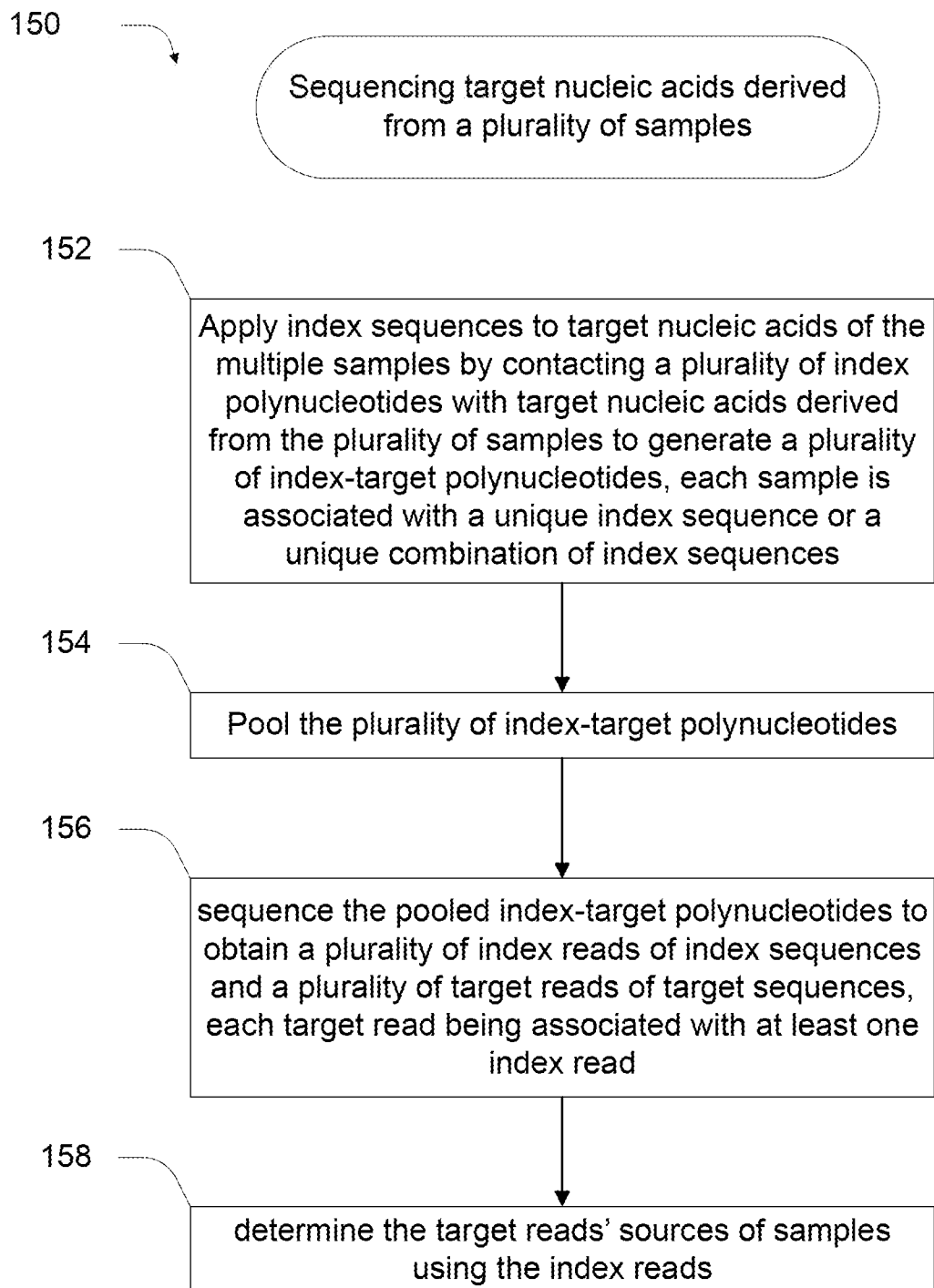


**Figure 1A**

**Figure 1B**

**Figure 1C**

**Figure 1D**

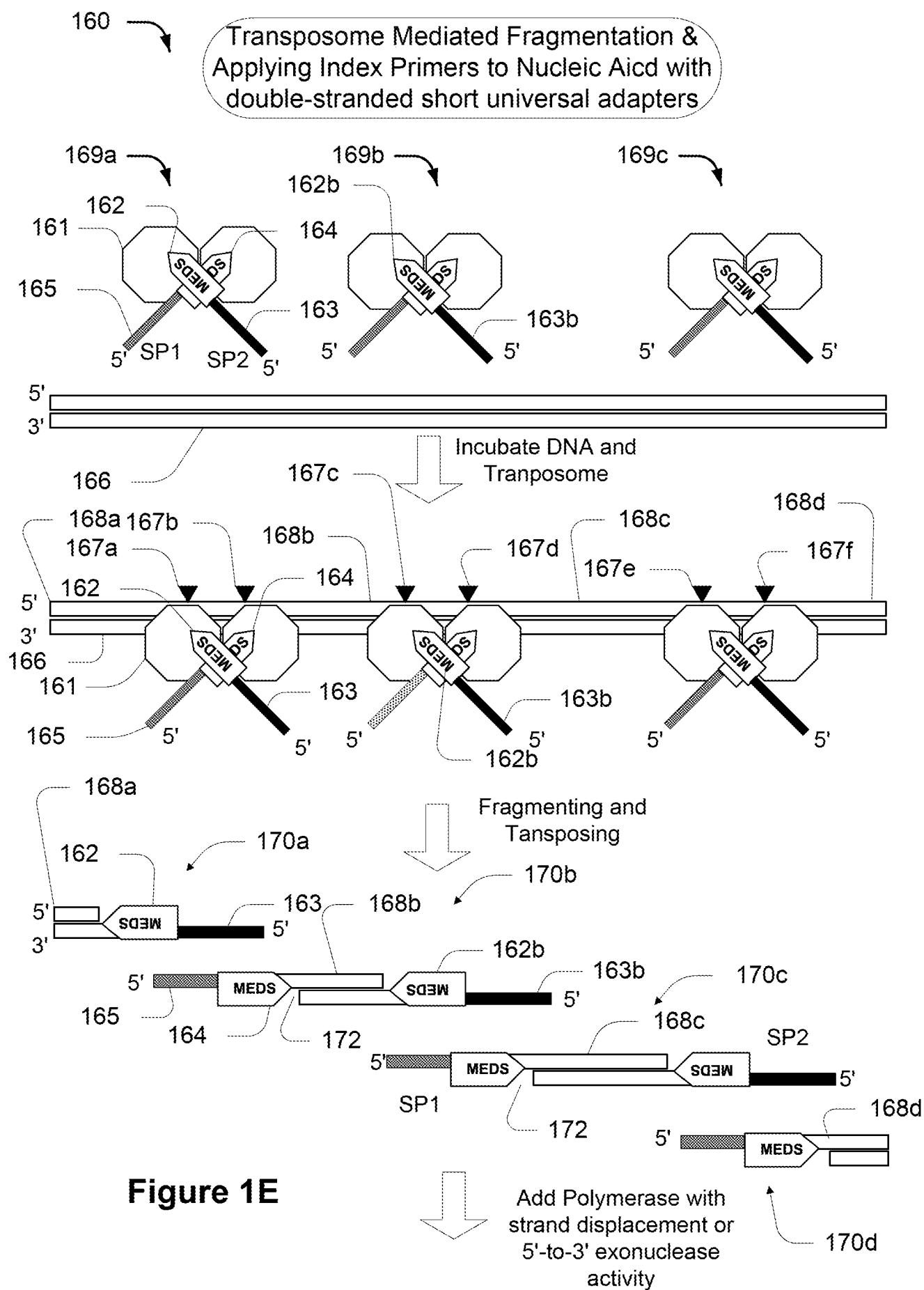
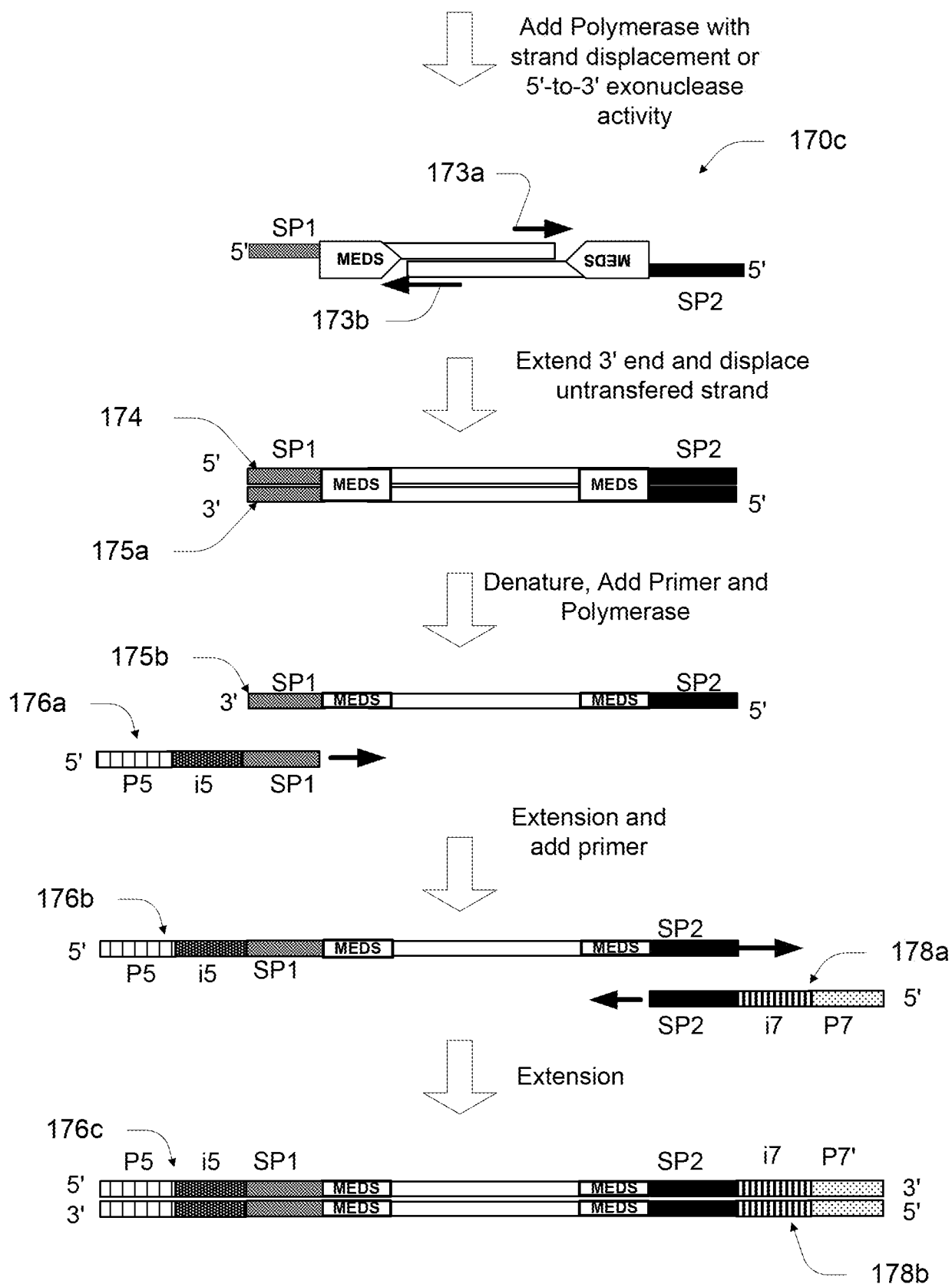


Figure 1E

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Insert with double stranded universal Nextera adapters (A + B)

A	B
Nextera read1 Rev	
[BLOCK] 5' - TCGTCGGCAGCGTC AGATCGGTAAATGACGACG-3' --p--Insert-5' CTGTCTTATACATCT CCGAGCCGACGAGAC-3' [BLOCK]	
[BLOCK] 3' - AGCAGCGGTCCAG TCTACACATATTCCTCTCTC-5' --Insert-P-3' GACAGAGATATGTGTAGA GGTCGGGTCTCTG-5' [BLOCK]	
HP11 Seq5	

Figure 1G

Insert with forked universal Nextera adapters

Nextera read1 Rev	
33bp	
[BLOCK] 5' - TCGTCGGCAGCGTC AGATCGGTAAATGACGACG-3' --p--Insert-5' CTGTCTTATACATCT CCGAGCCGACGAGAC-3' [BLOCK]	
[BLOCK] 3' - CAGAGCAGCCGAGCC TCTACACATATTCCTCTCTC-5' --Insert-P-3' GACAGAGATATGTGTAGA CTGGGACGGCTGCT-5' [BLOCK]	
34bp	
HP11 Seq5	

Figure 1H

I7 Index read 1 primer
5' -CAAGCAGACACCGCATACAGAT [i7] GTCGTCGGCTCGG-3'

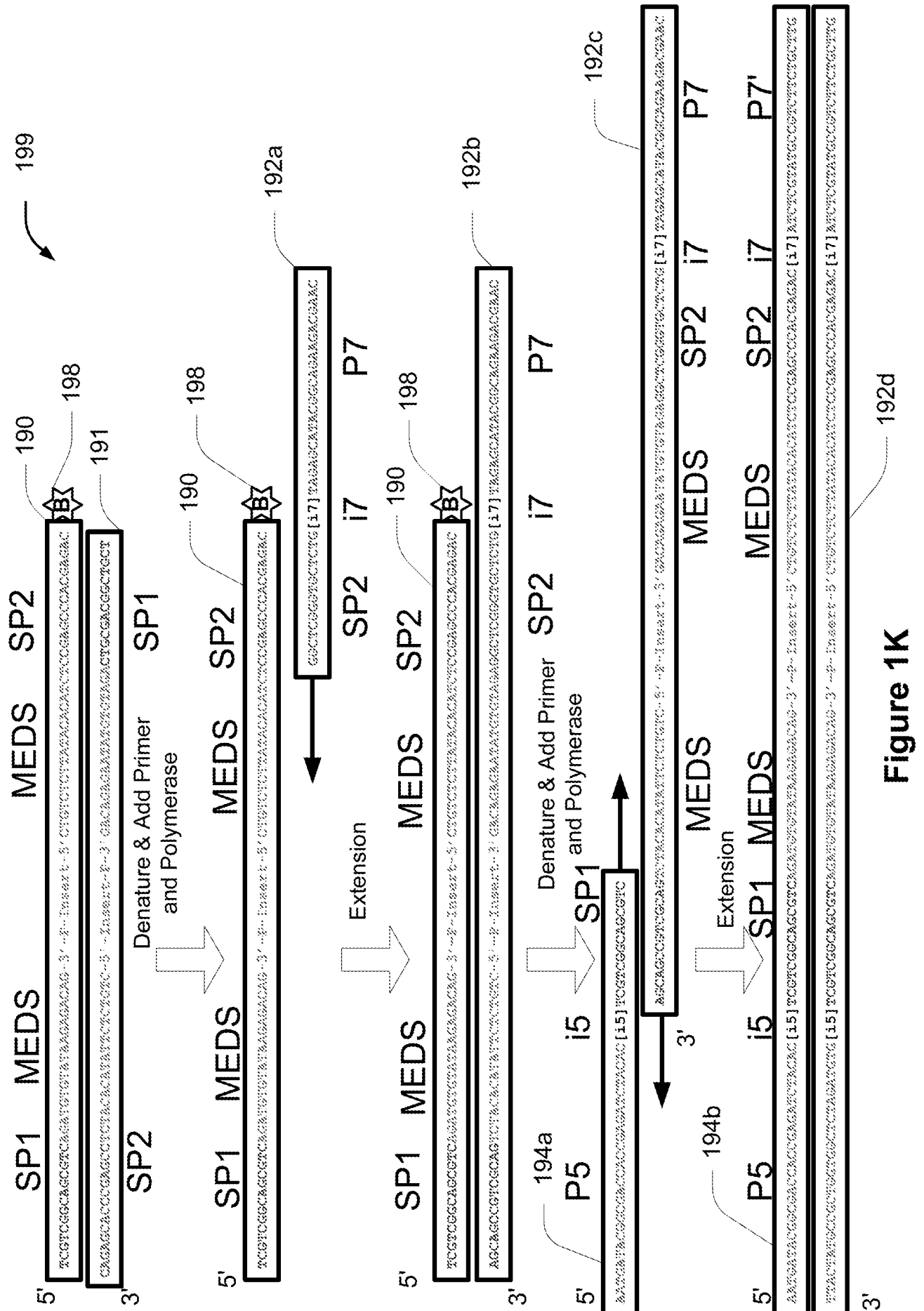
24 (P7)+8 (i7)+15 = 47bp

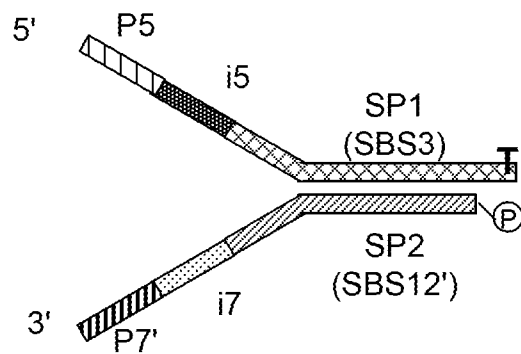
Figure 1I

I5 Index read 2 primer
5' -AATGATACCGCGACCCGAGATCTACAC [i5] TCGTCGGCAGCGTC-3'

29 (P5)+8 (i5)+14 = 51bp

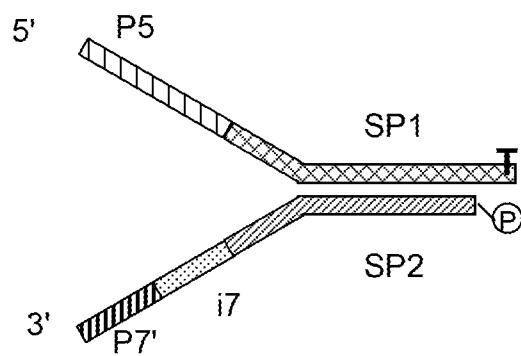
Figure 1J





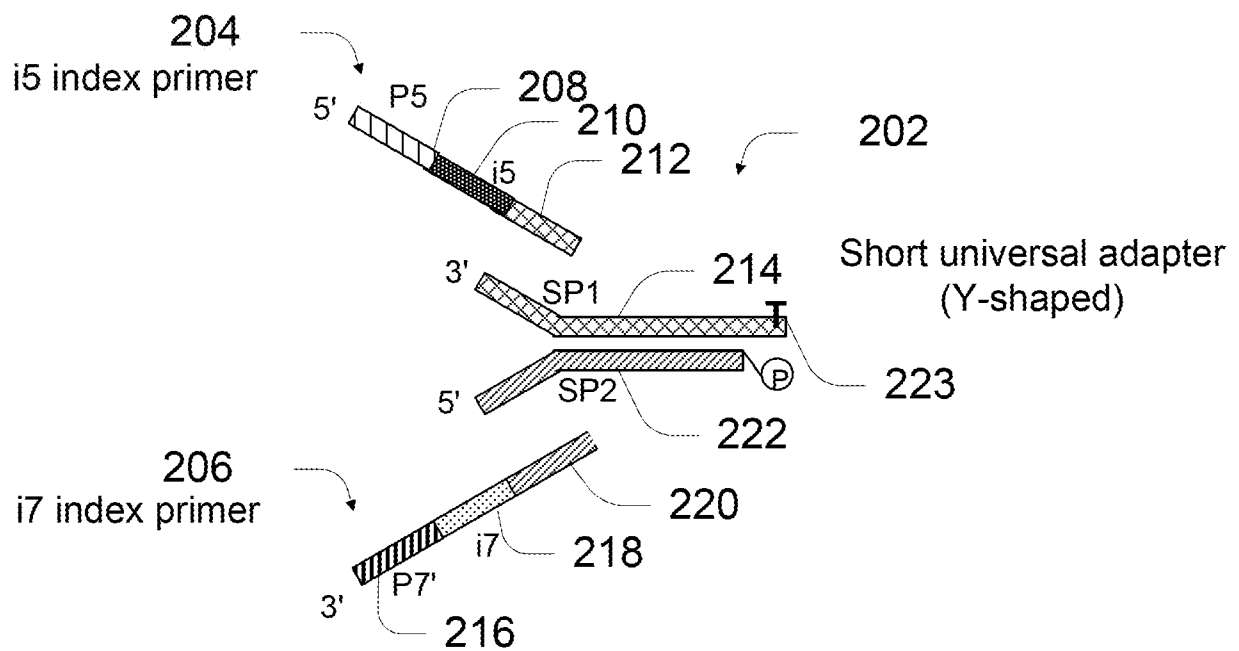
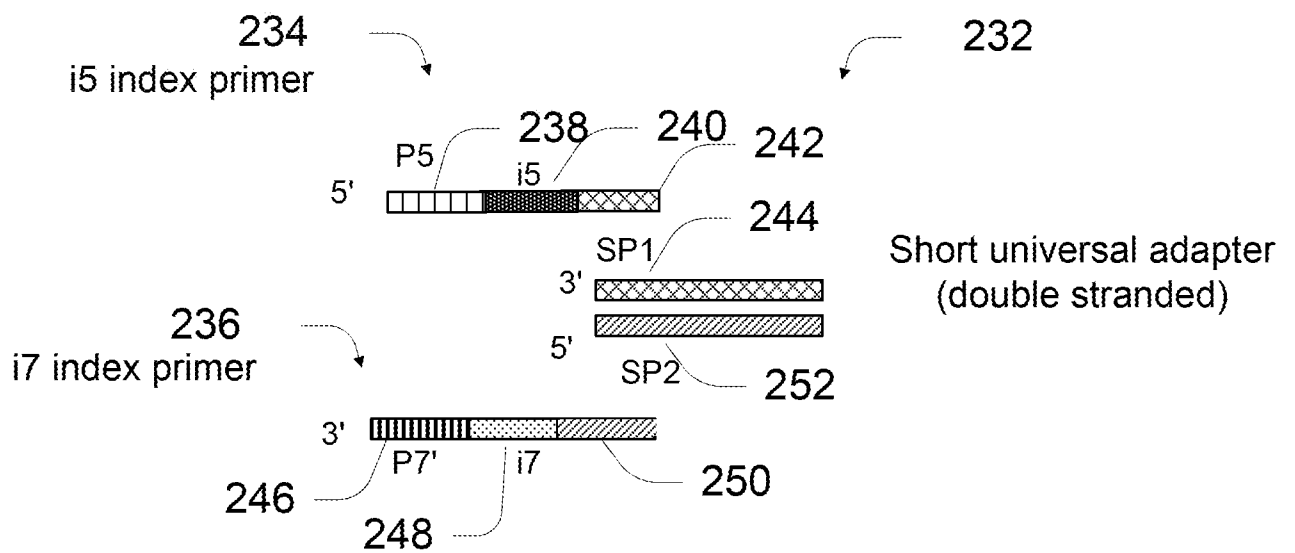
Dual index adapter
(Y-shaped)

Figure 2A



Single index adapter
(Y-shaped)

Figure 2B

**Figure 2C****Figure 2D**

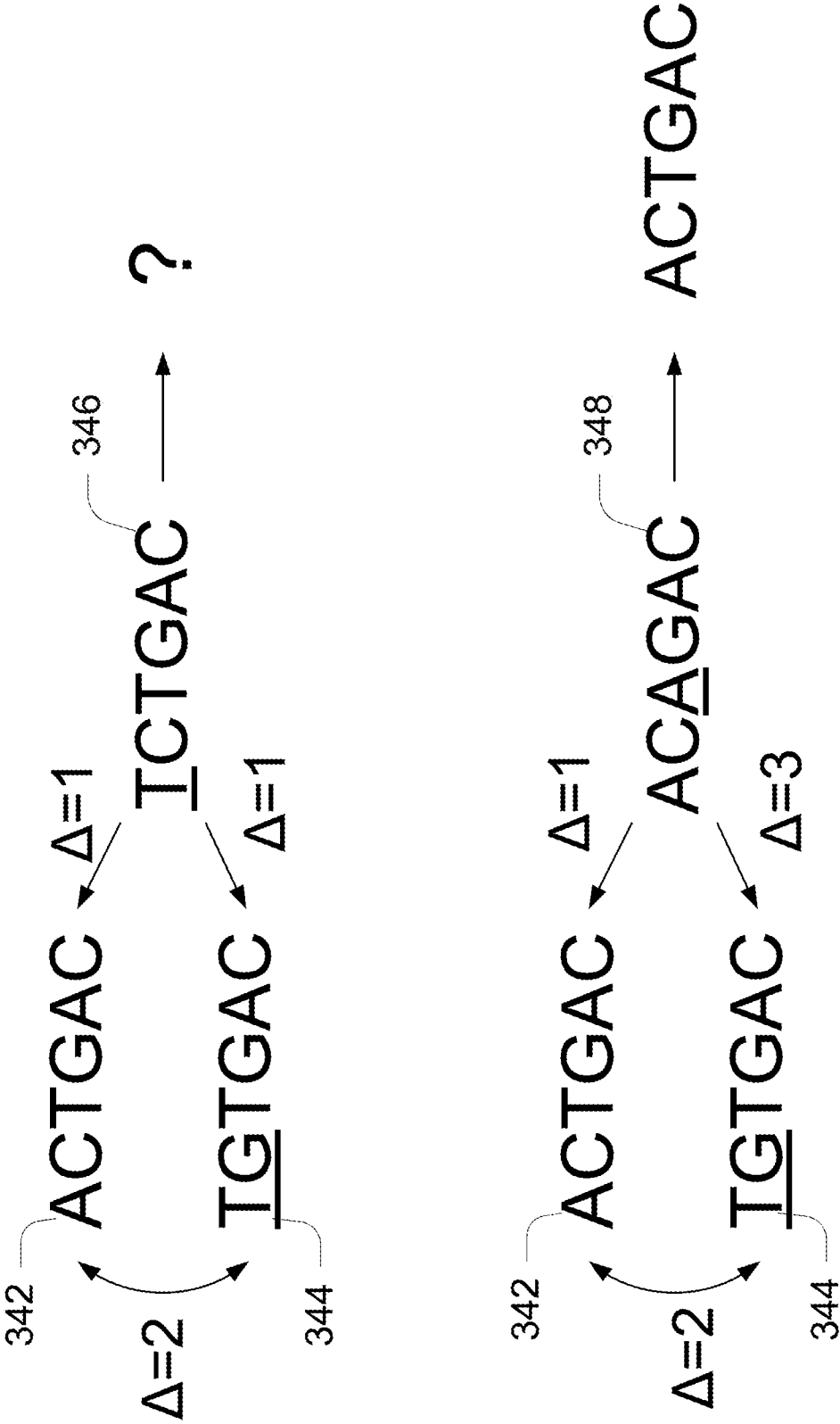


Figure 3

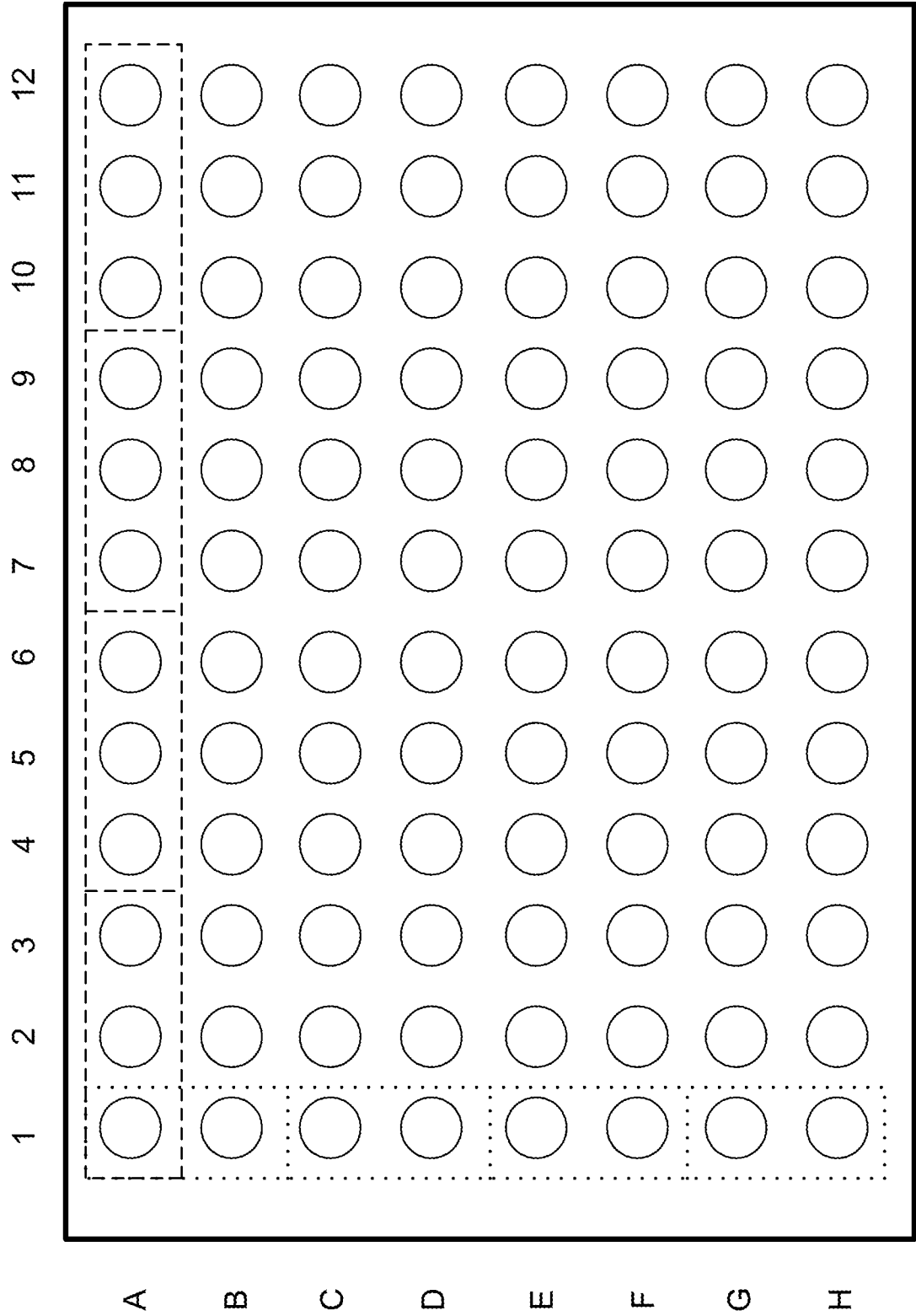


Figure 4A

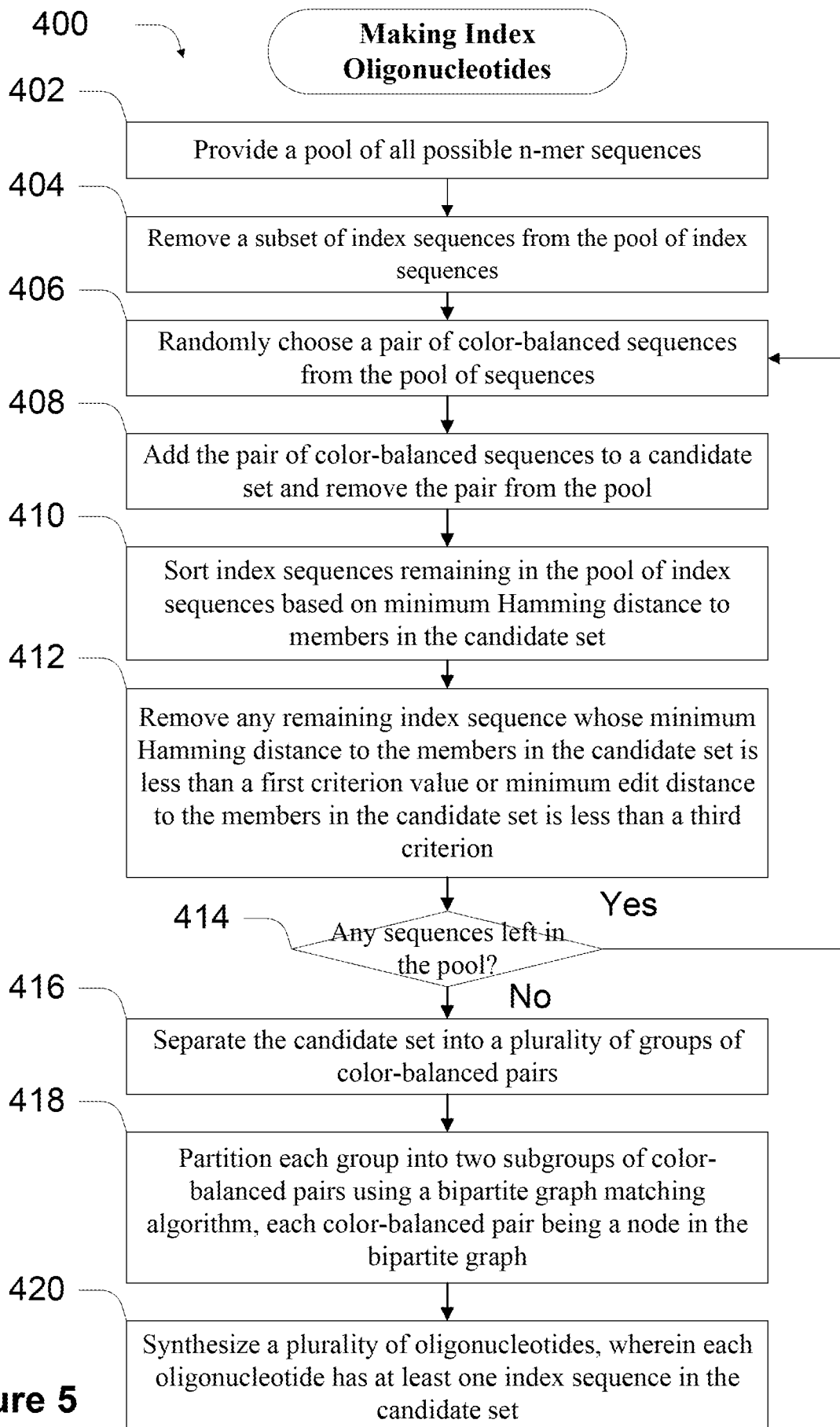
	1	2	3	4	5	6	7	8	9	10	11	12
A	i501	i502	i503	i504	i505	i506	i501	i502	i503	i504	i505	i506
B	i502	i501	i504	i503	i506	i505	i502	i501	i504	i503	i506	i505
C	i503	i504	i505	i506	i507	i508	i503	i504	i505	i506	i507	i508
D	i504	i503	i506	i505	i508	i507	i504	i503	i506	i505	i508	i507
E	i505	i506	i507	i508	i501	i502	i505	i506	i507	i508	i501	i502
F	i506	i505	i508	i507	i502	i501	i506	i505	i508	i507	i502	i501
G	i507	i508	i501	i502	i503	i504	i507	i508	i501	i502	i503	i504
H	i508	i507	i502	i501	i504	i503	i508	i507	i502	i501	i504	i503

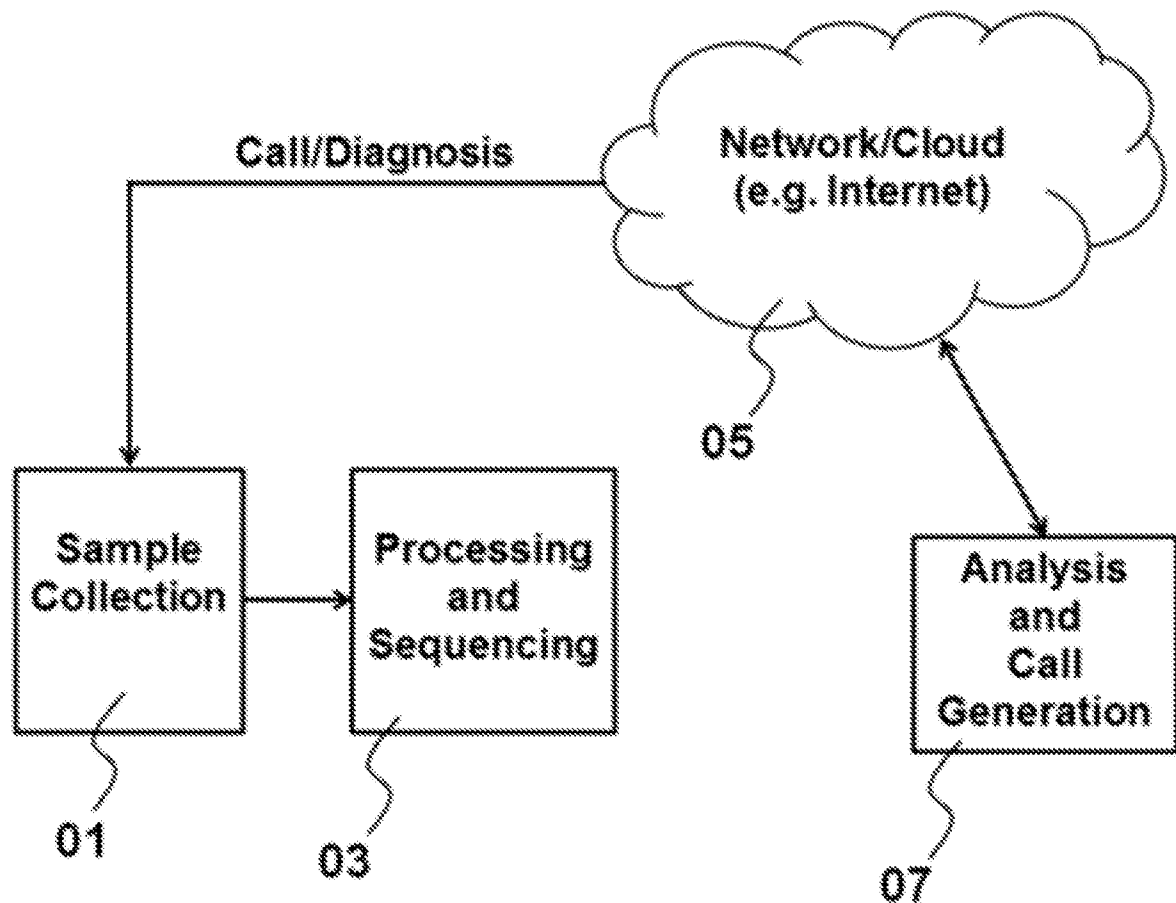
Figure 4B

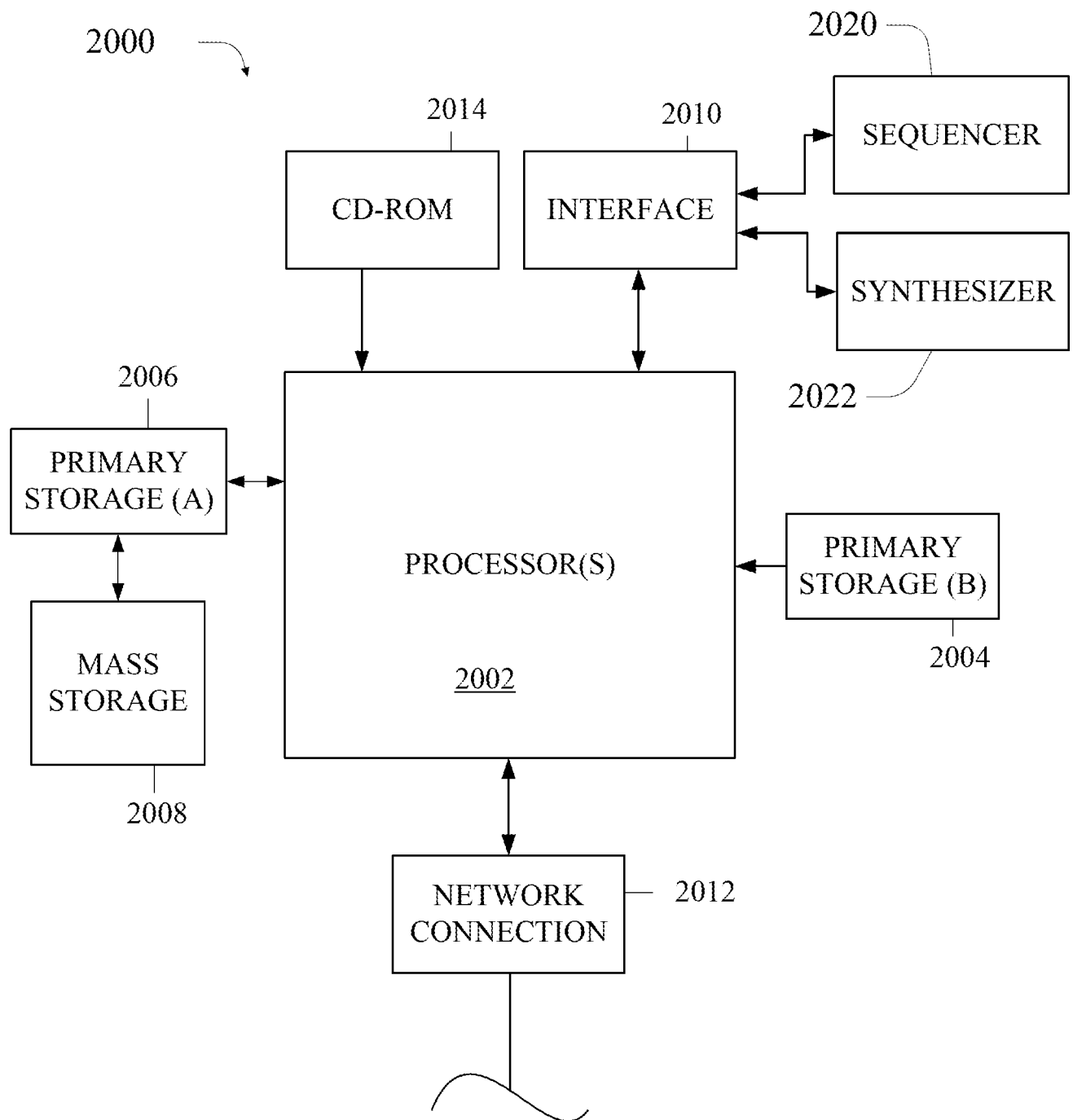
	1	2	3	4	5	6	7	8	9	10	11	12
A	i701	i705	i702	i703	i706	i704	i708	i709	i707	i711	i710	i712
B	i702	i706	i701	i704	i705	i703	i707	i710	i708	i712	i709	i711
C	i706	i704	i705	i702	i703	i701	i710	i712	i709	i707	i711	i708
D	i705	i703	i706	i701	i704	i702	i709	i711	i710	i708	i712	i707
E	i707	i711	i708	i709	i712	i710	i702	i703	i701	i705	i704	i706
F	i708	i712	i707	i710	i711	i709	i701	i704	i702	i706	i703	i705
G	i712	i710	i711	i708	i709	i707	i704	i706	i703	i701	i705	i702
H	i711	i709	i712	i707	i710	i708	i703	i705	i704	i702	i706	i701

Figure 4C

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**Figure 5**

**Figure 6**

**Figure 7**