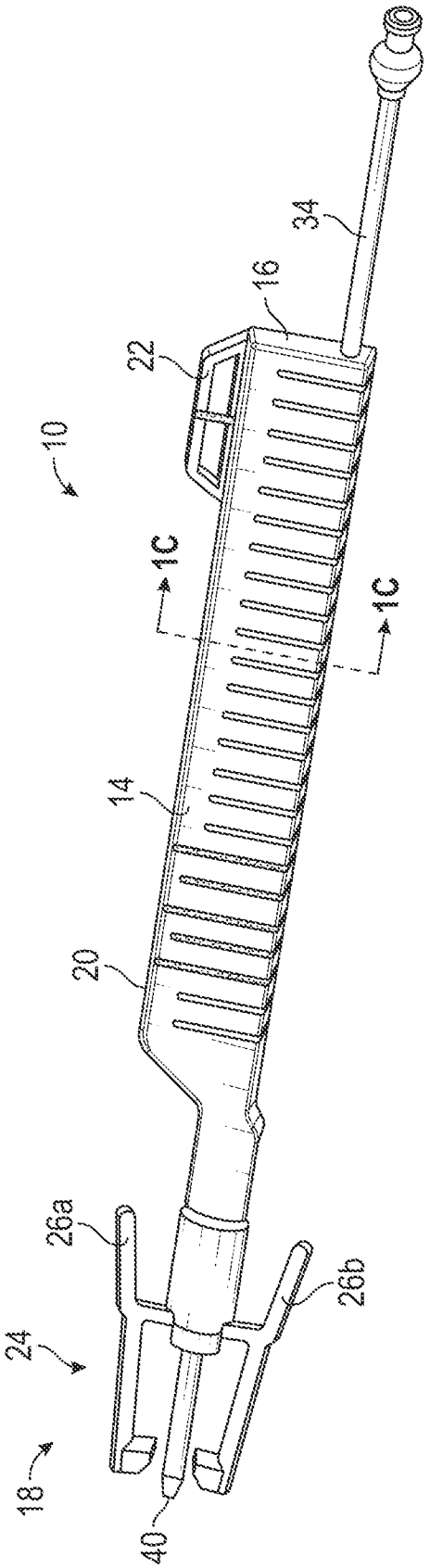


FIG. 1A

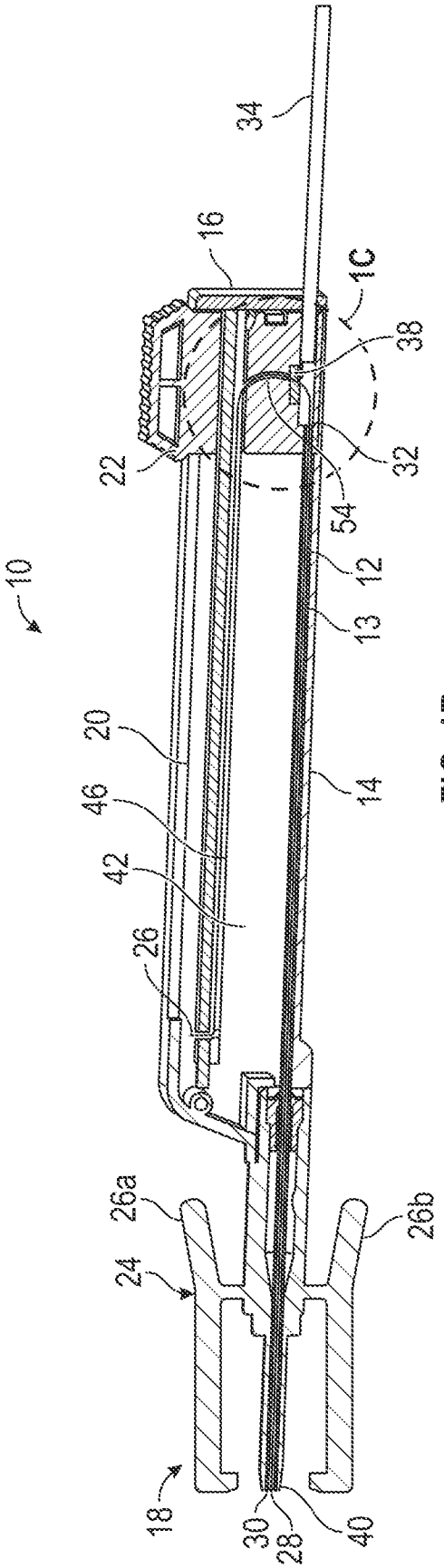

10
34
16
1C
38
22
32
54
12
13
20
14
46
42
26
26a
24
26b
18
30
28
40

FIG. 1B

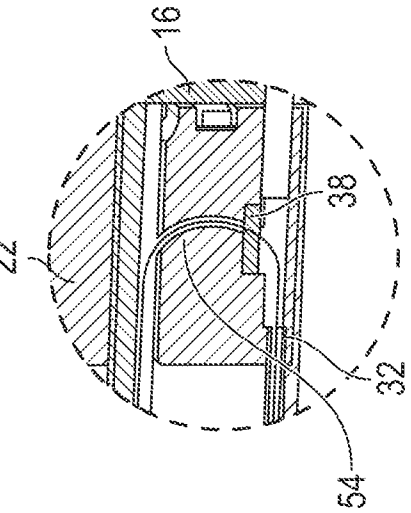

16
38
22
32
54

FIG. 1C

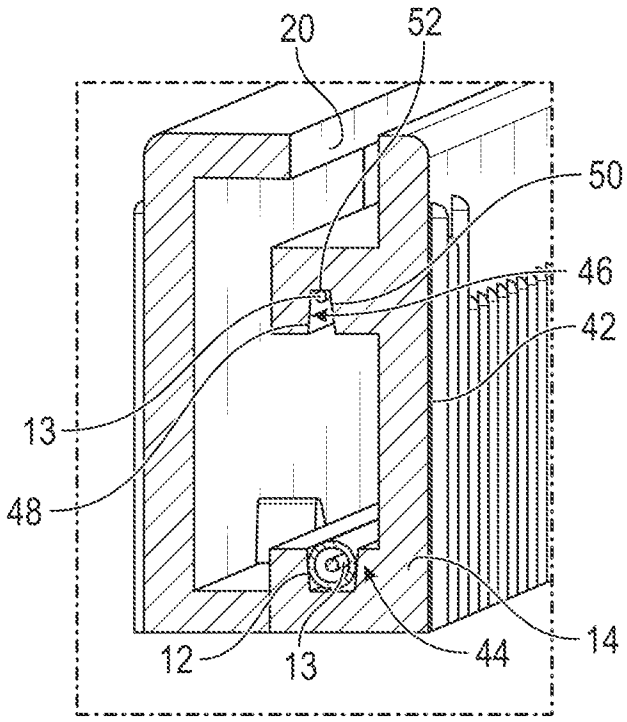


FIG. 1D

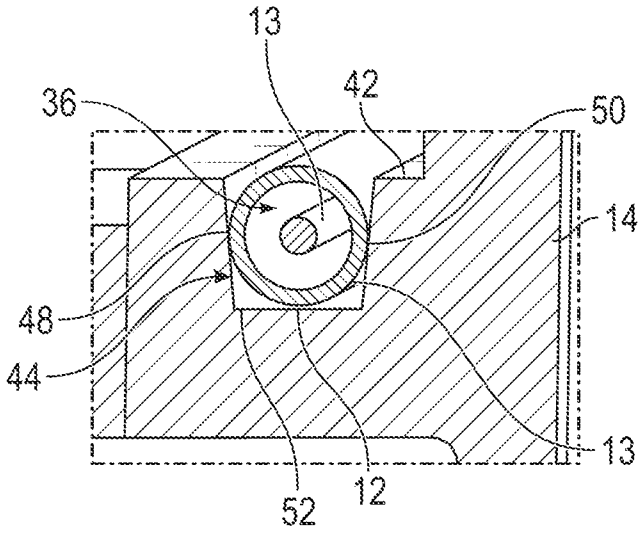


FIG. 1E

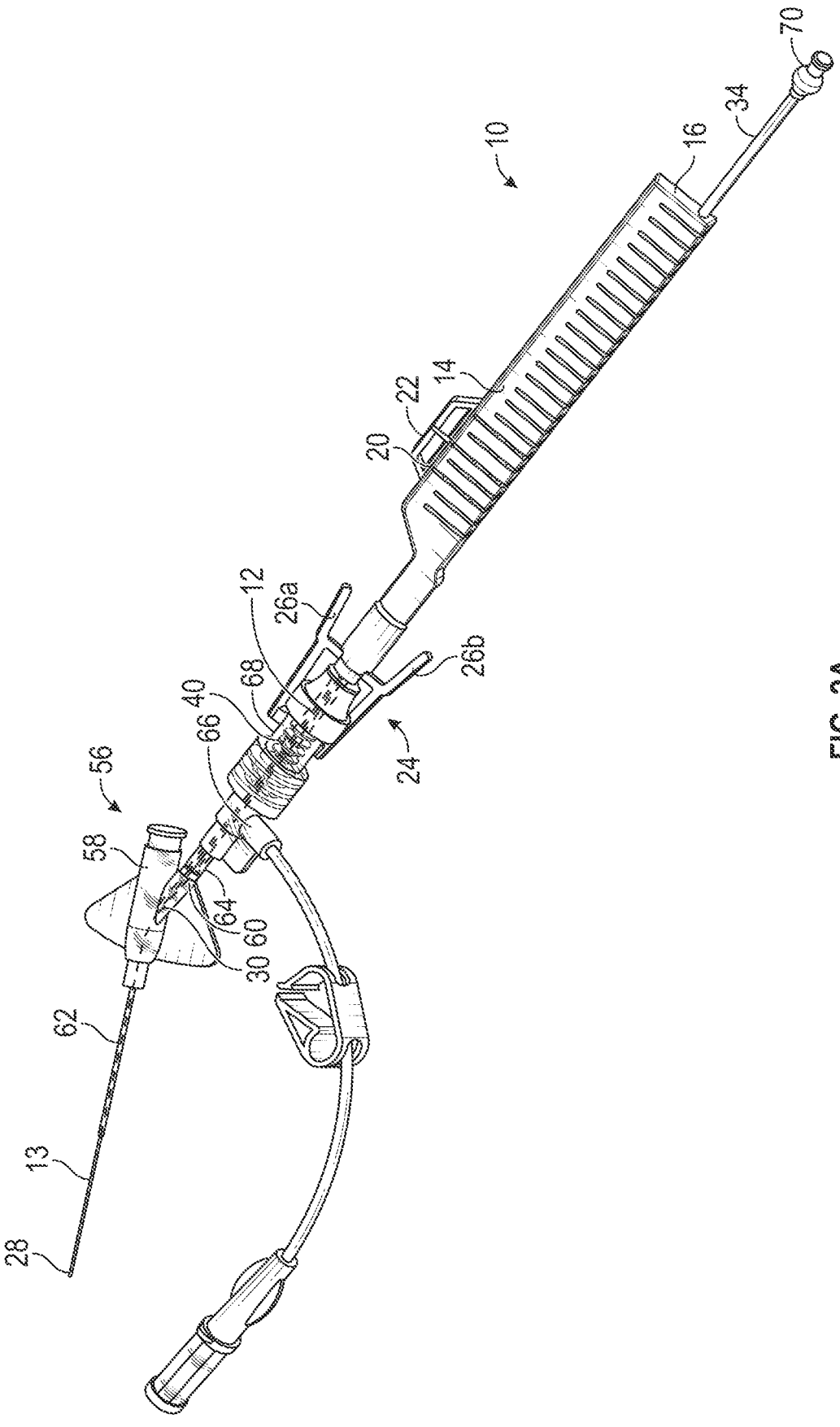


FIG. 2A

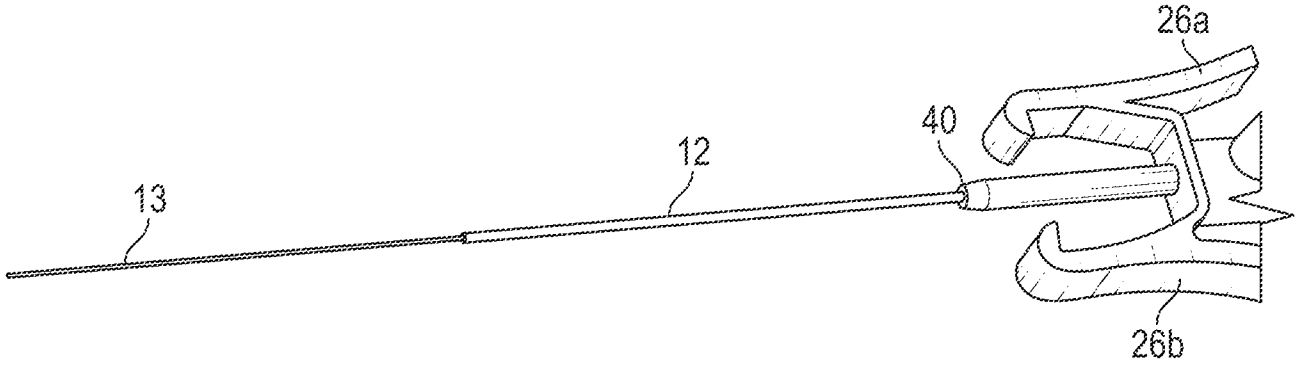

26a
40
12
13
26b

FIG. 2B

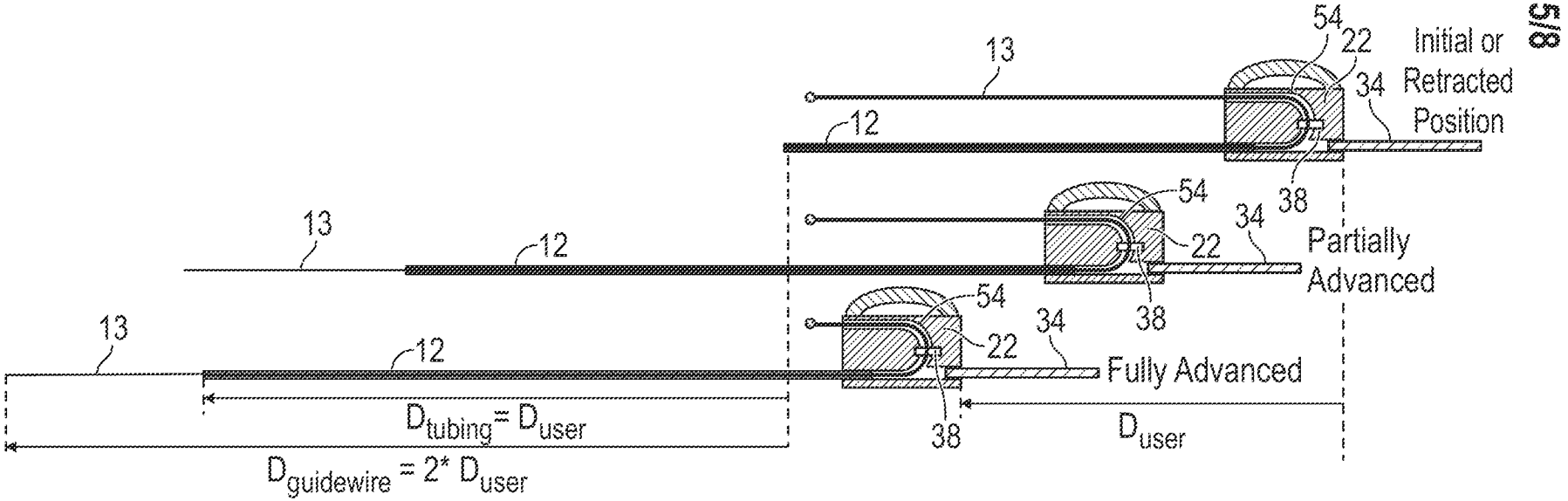

54
22
Initial or
Retracted
Position
34
13
12
38
54
34
Partially
Advanced
13
12
22
38
54
34
13
12
22
Fully Advanced
38
$D_{tubing} = D_{user}$
D_{user}
$D_{guidewire} = 2^* D_{user}$

FIG. 2C

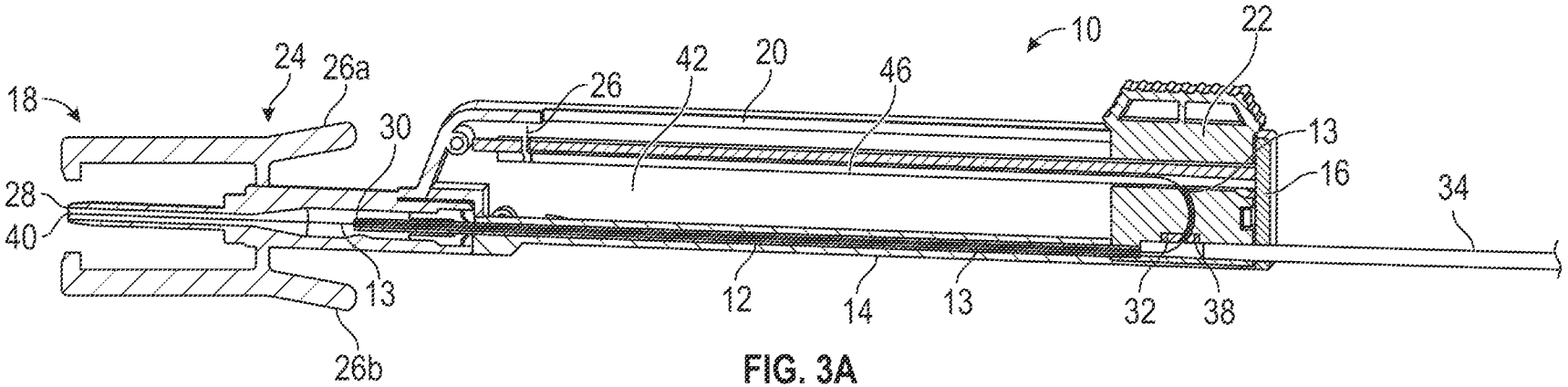

10
18
24
26a
26
42
20
46
22
30
13
16
28
40
34
13
12
14
13
32
38
26b

FIG. 3A

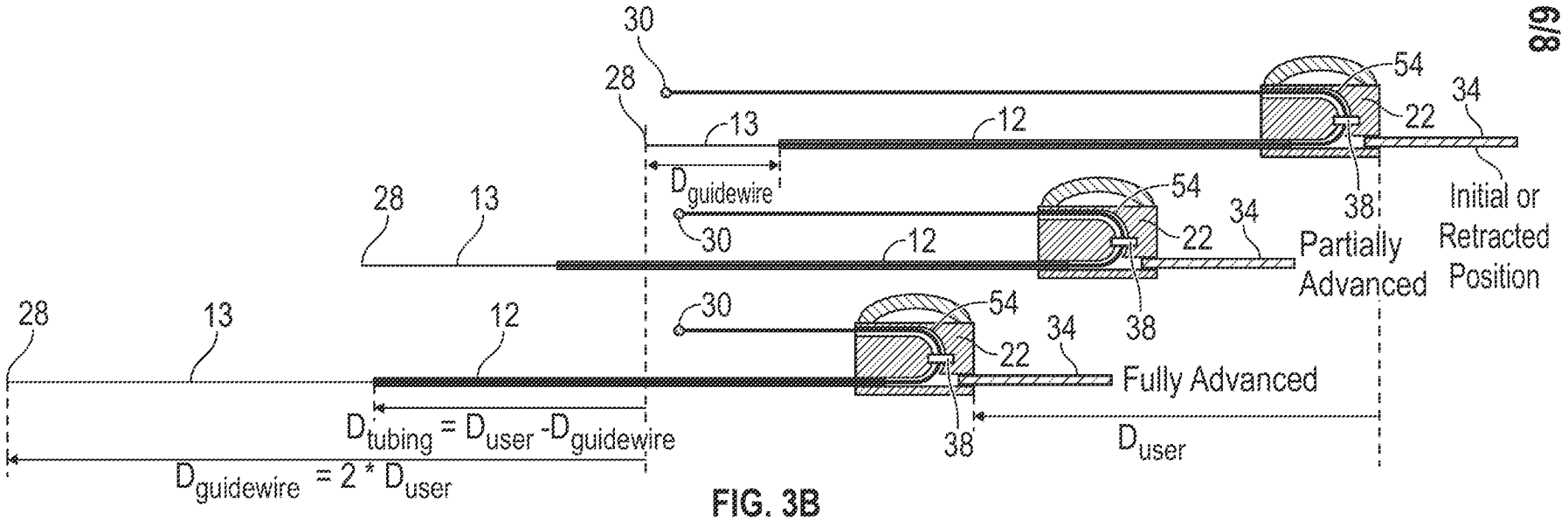

30
28
54
34
22
13
12
$D_{guidewire}$
38
Initial or Retracted Position
28
13
54
30
12
22
34
Partially Advanced
28
13
12
30
54
34
38
22
Fully Advanced
$D_{tubing} = D_{user} - D_{guidewire}$
38
D_{user}
$D_{guidewire} = 2 * D_{user}$

FIG. 3B

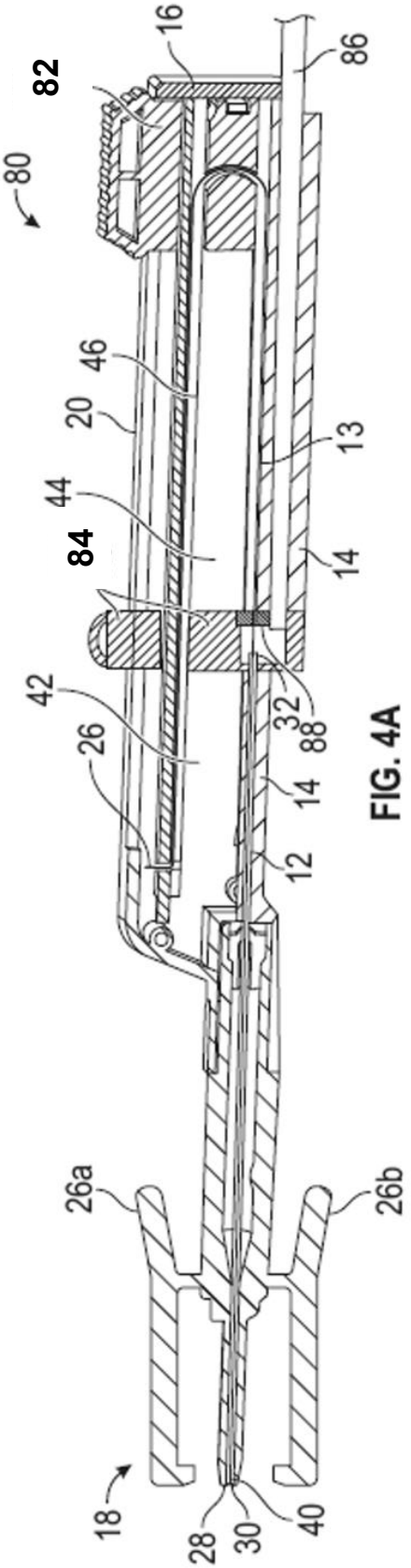

80
82
16
86
46
20
13
44
84
14
42
26
32
88
14
12
26a
26b
18
28
30
40

FIG. 4A

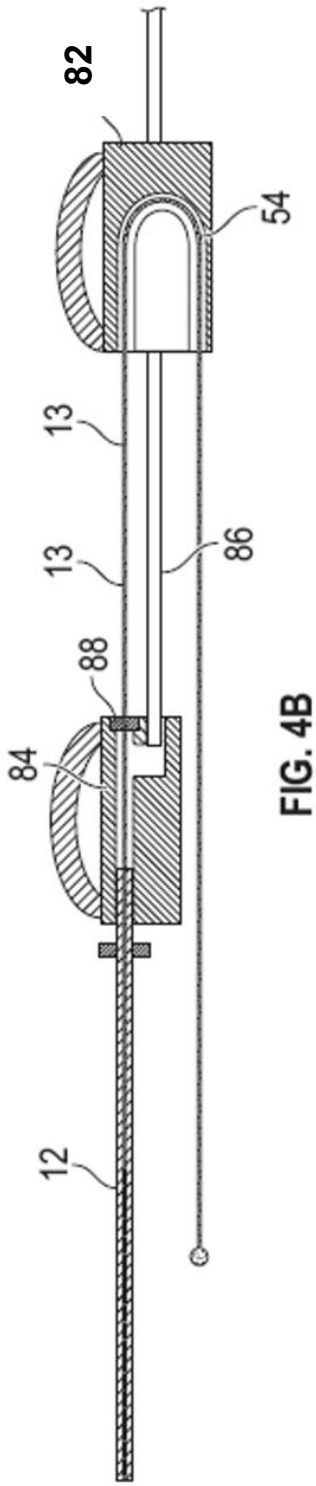

82
54
13
13
86
88
84
12

FIG. 4B

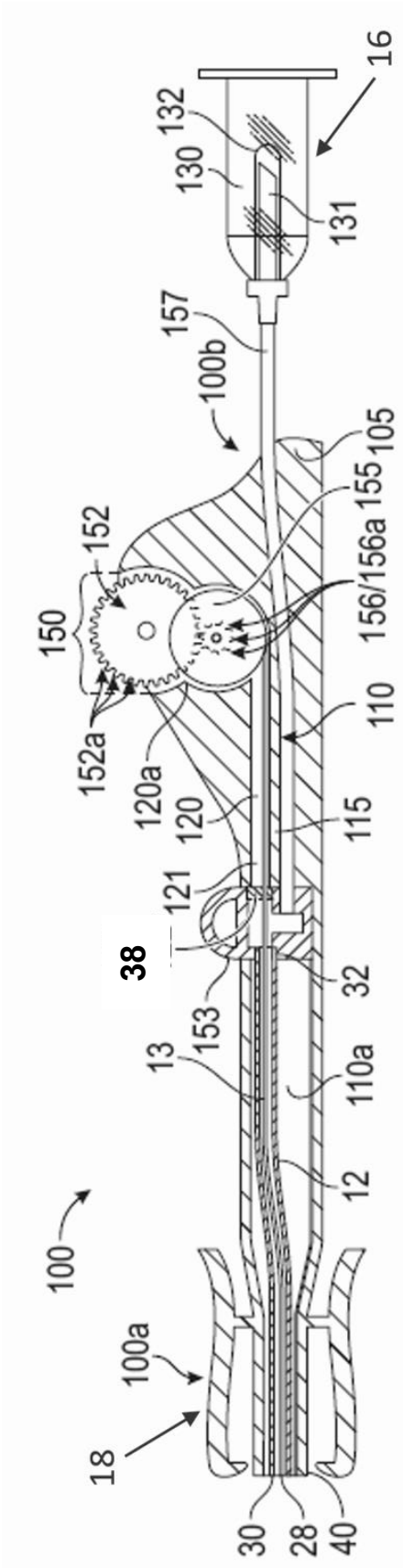

16
132
130
131
157
100b
105
155
156/156a
152
150
152a
120a
120
110
115
121
38
32
153
13
110a
12
100
100a
18
30
28
40

FIG. 5A

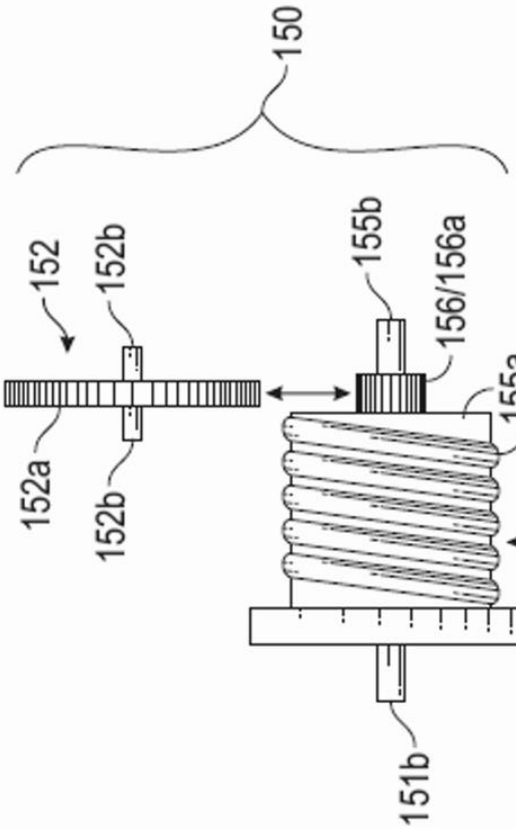

150
152
152b
155b
156/156a
155a
153
152a
152b
155
151b

FIG. 5B