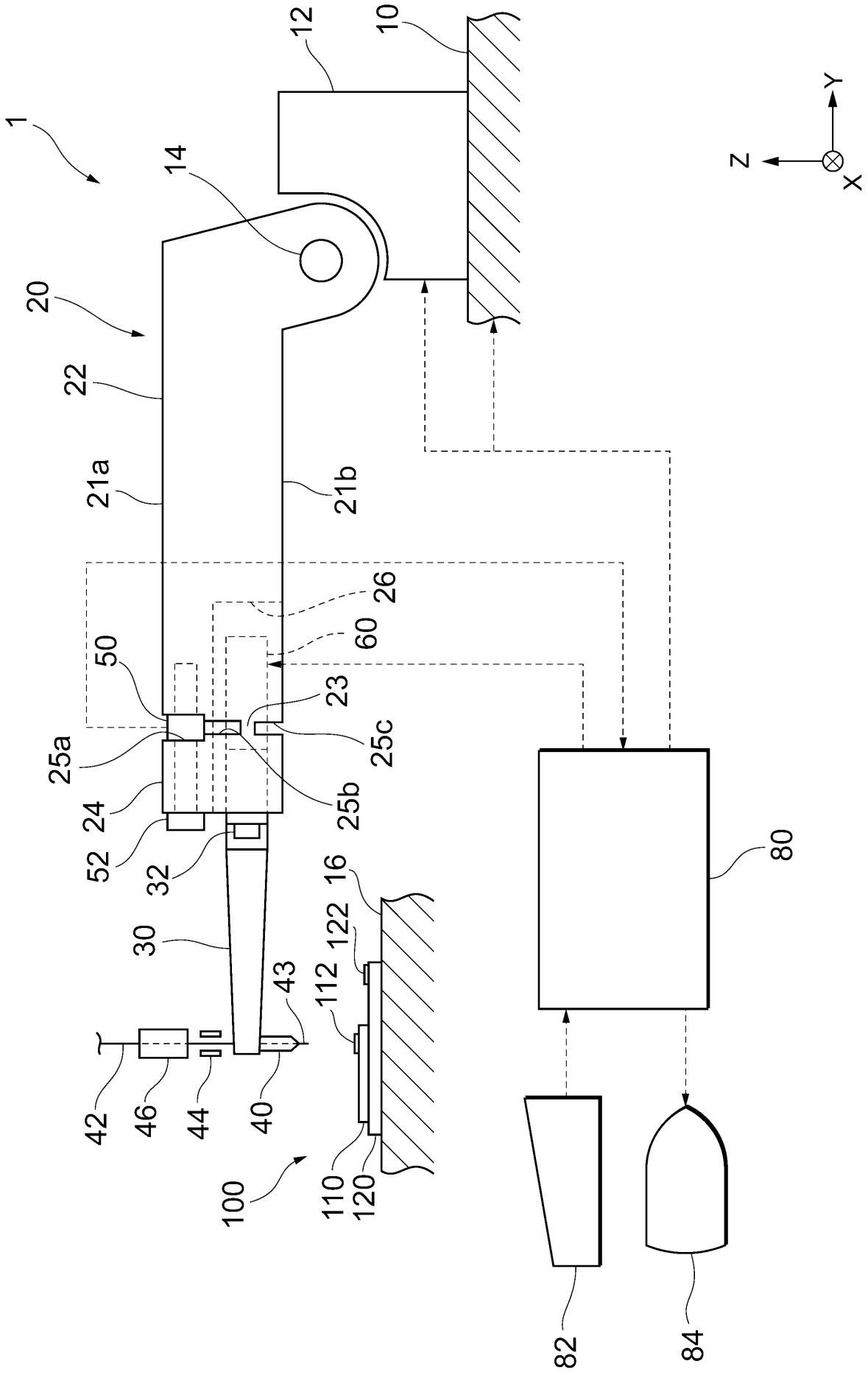
1
10
12
14
20
22
21a
21b
26
60
50
23
25a
25c
25b
24
52
32
30
16
122
112
43
42
46
44
40
100
110
120
80
82
84
Z
Y
X

FIG. 1

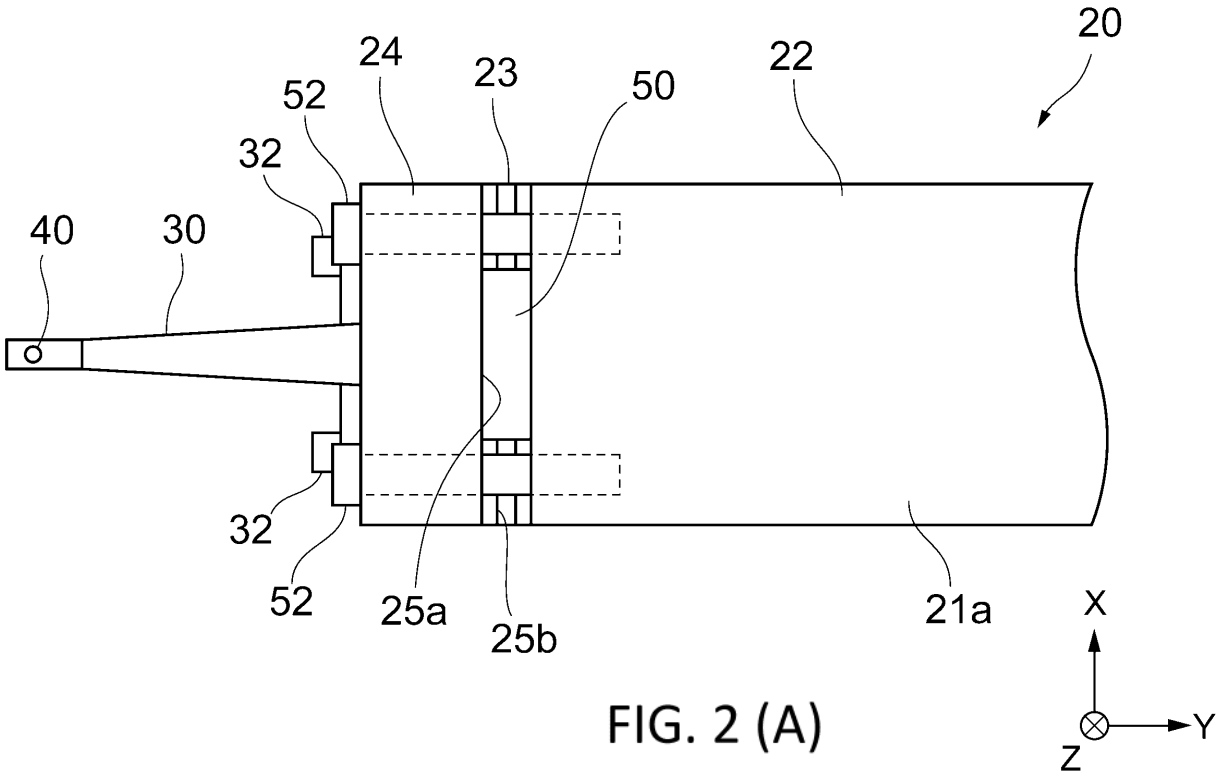
20
24
23
22
52
50
32
40
30
32
52
25a
25b
21a
X
Y
Z

FIG. 2 (A)

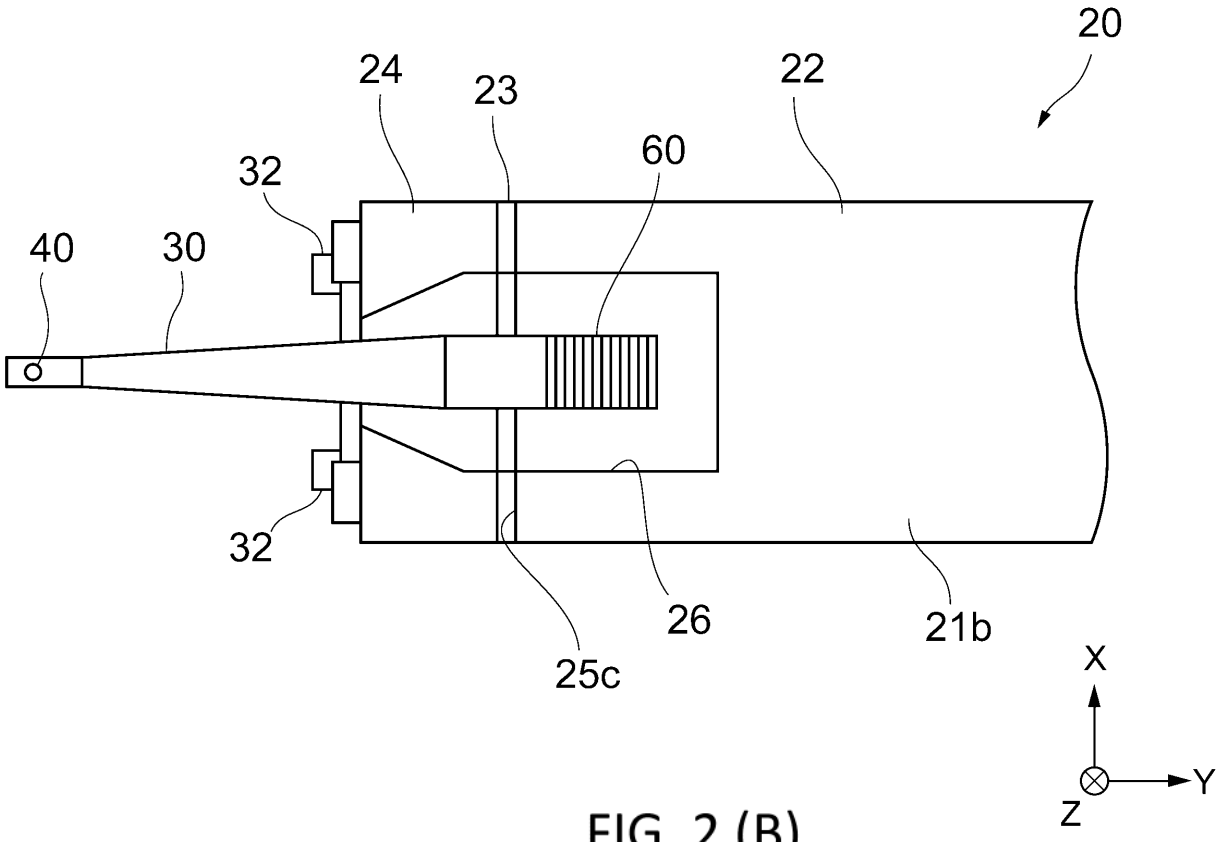
20
24
23
22
60
32
40
30
32
26
21b
25c
X
Y
Z

FIG. 2 (B)

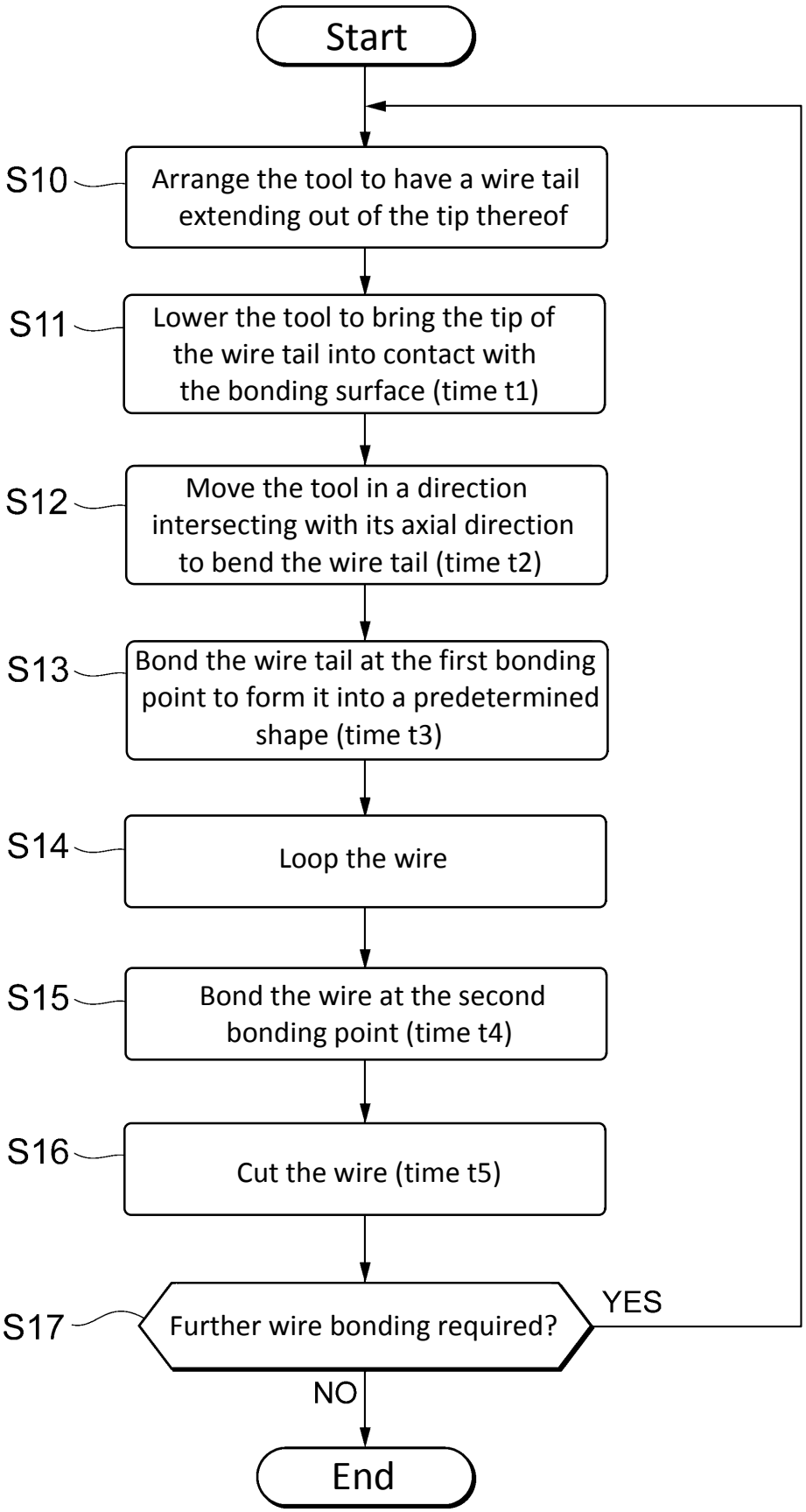
Start
S10
Arrange the tool to have a wire tail extending out of the tip thereof
S11
Lower the tool to bring the tip of the wire tail into contact with the bonding surface (time t1)
S12
Move the tool in a direction intersecting with its axial direction to bend the wire tail (time t2)
S13
Bond the wire tail at the first bonding point to form it into a predetermined shape (time t3)
S14
Loop the wire
S15
Bond the wire at the second bonding point (time t4)
S16
Cut the wire (time t5)
S17
Further wire bonding required?
YES
NO
End

FIG. 3

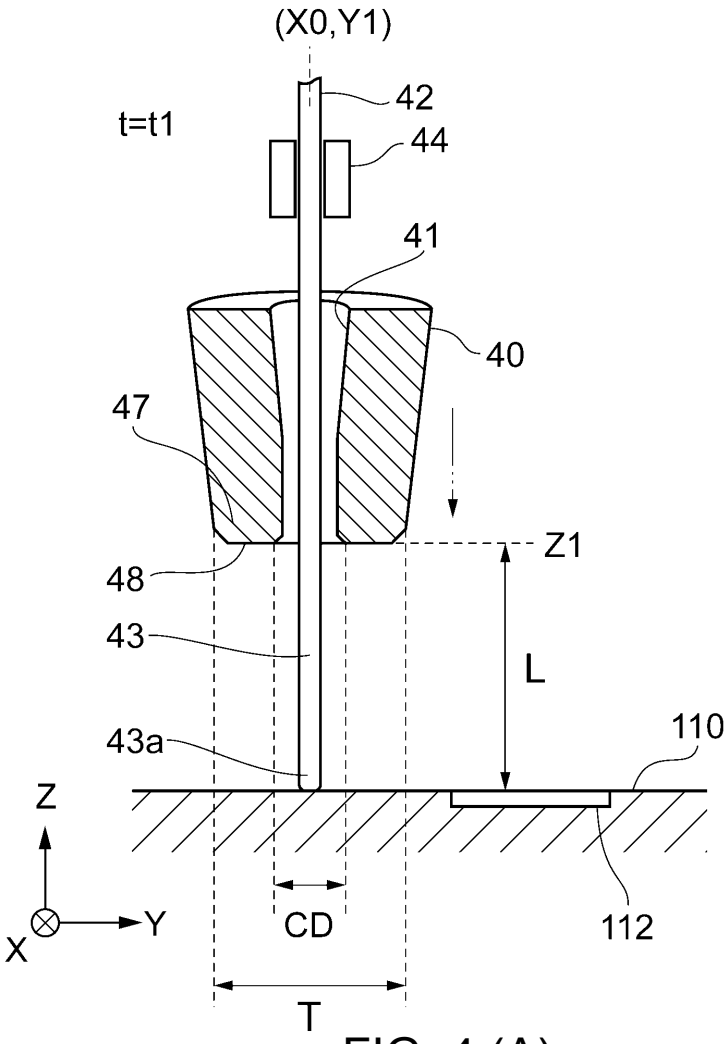

FIG. 4 (A)

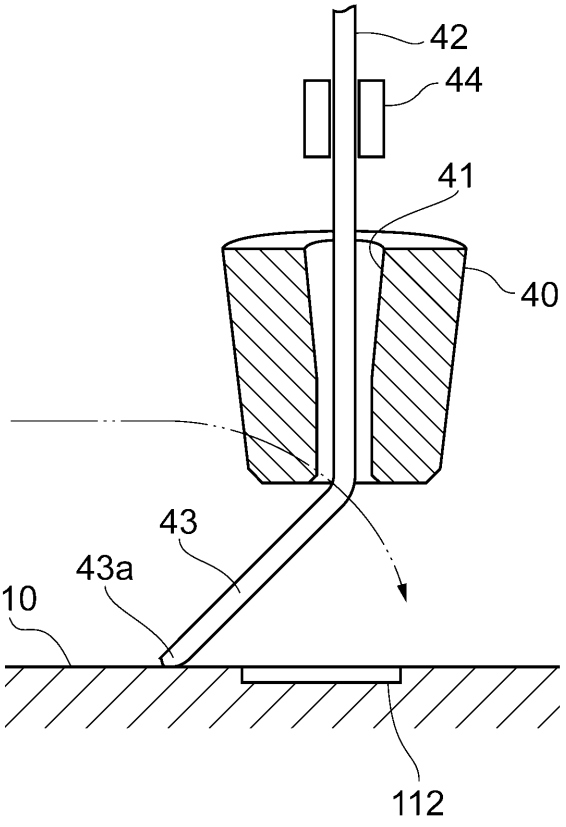

FIG. 4 (B)

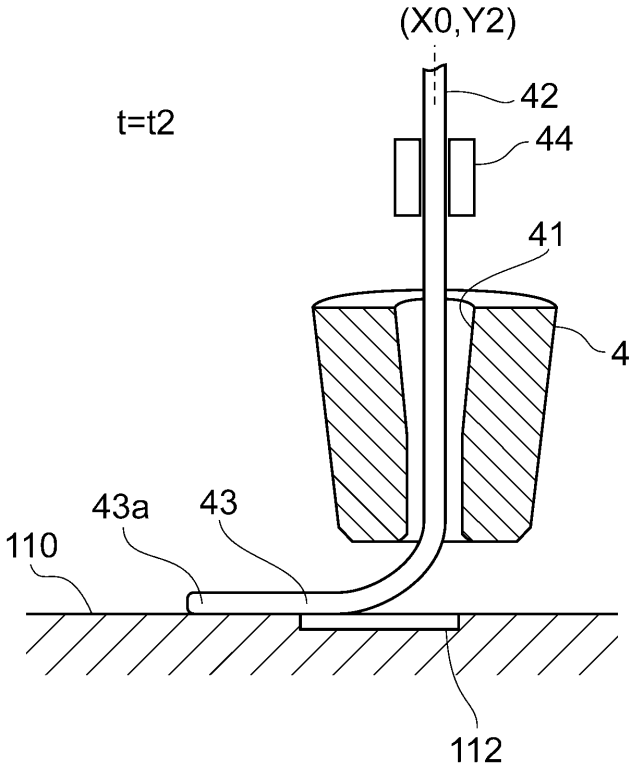

FIG. 4 (C)

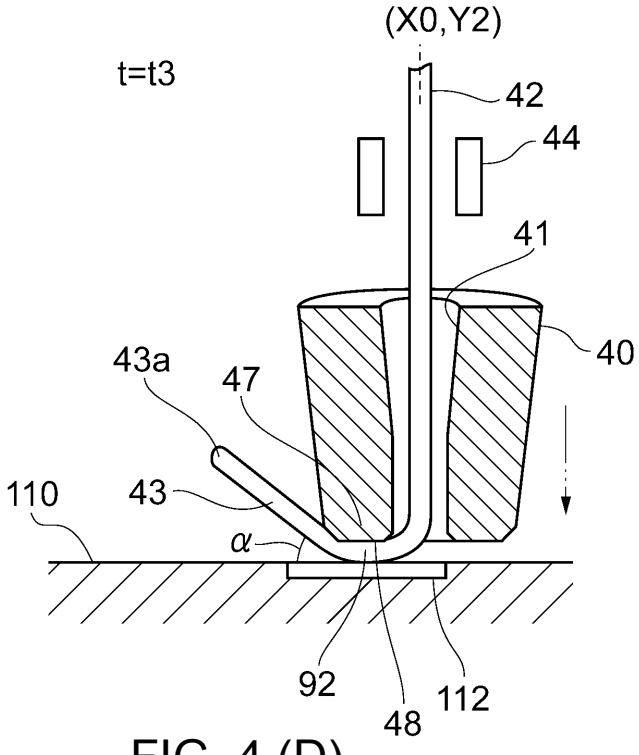

FIG. 4 (D)

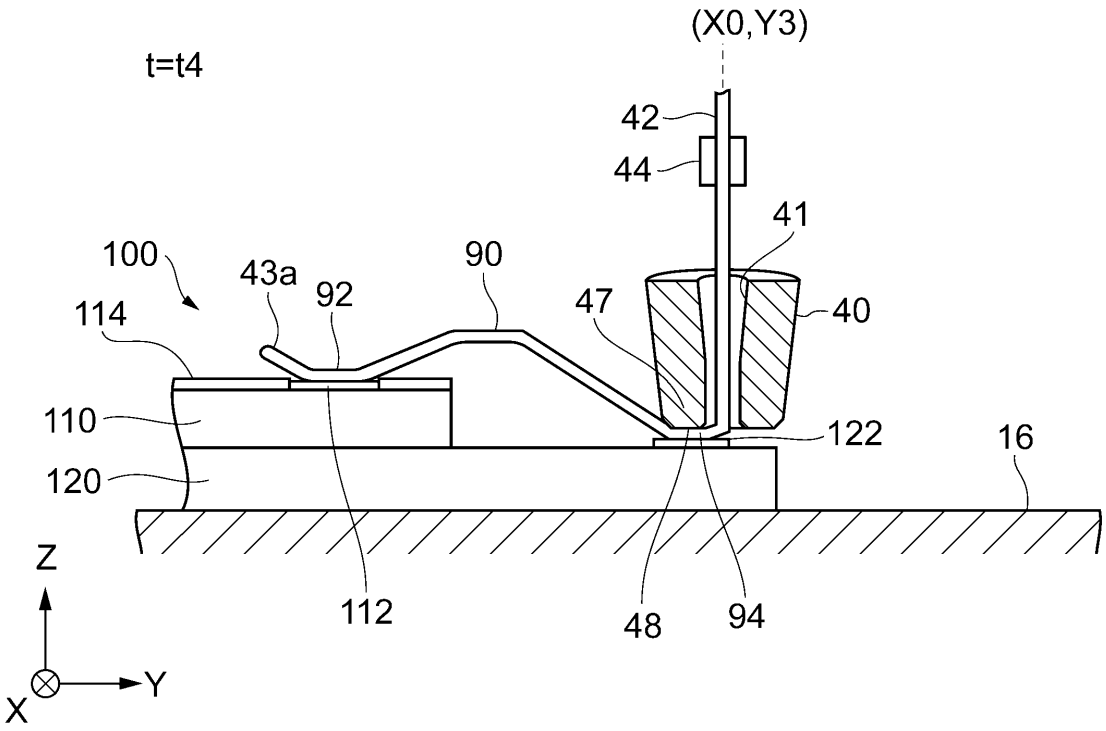
t=t4
(X0,Y3)
42
44
41
100
43a
92
90
47
40
114
110
122
16
120
112
48
94
Z
Y
X

FIG. 5 (A)

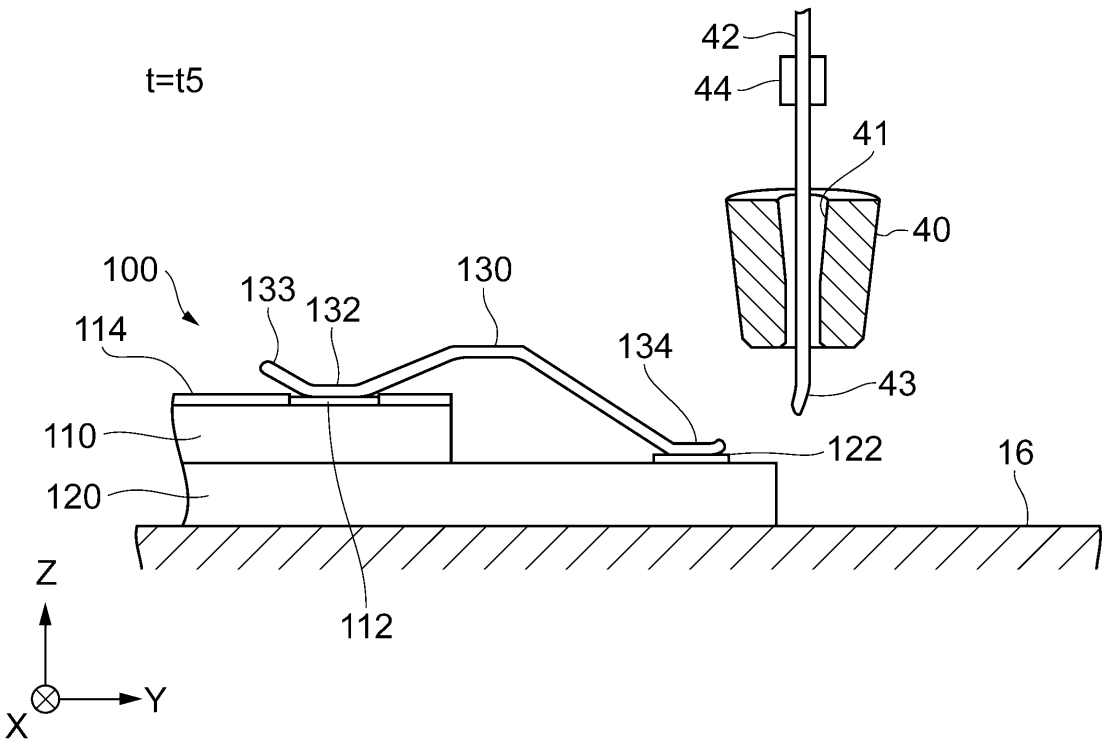
t=t5
42
44
41
40
100
133
132
130
114
134
43
110
122
16
120
112
Z
Y
X

FIG. 5 (B)

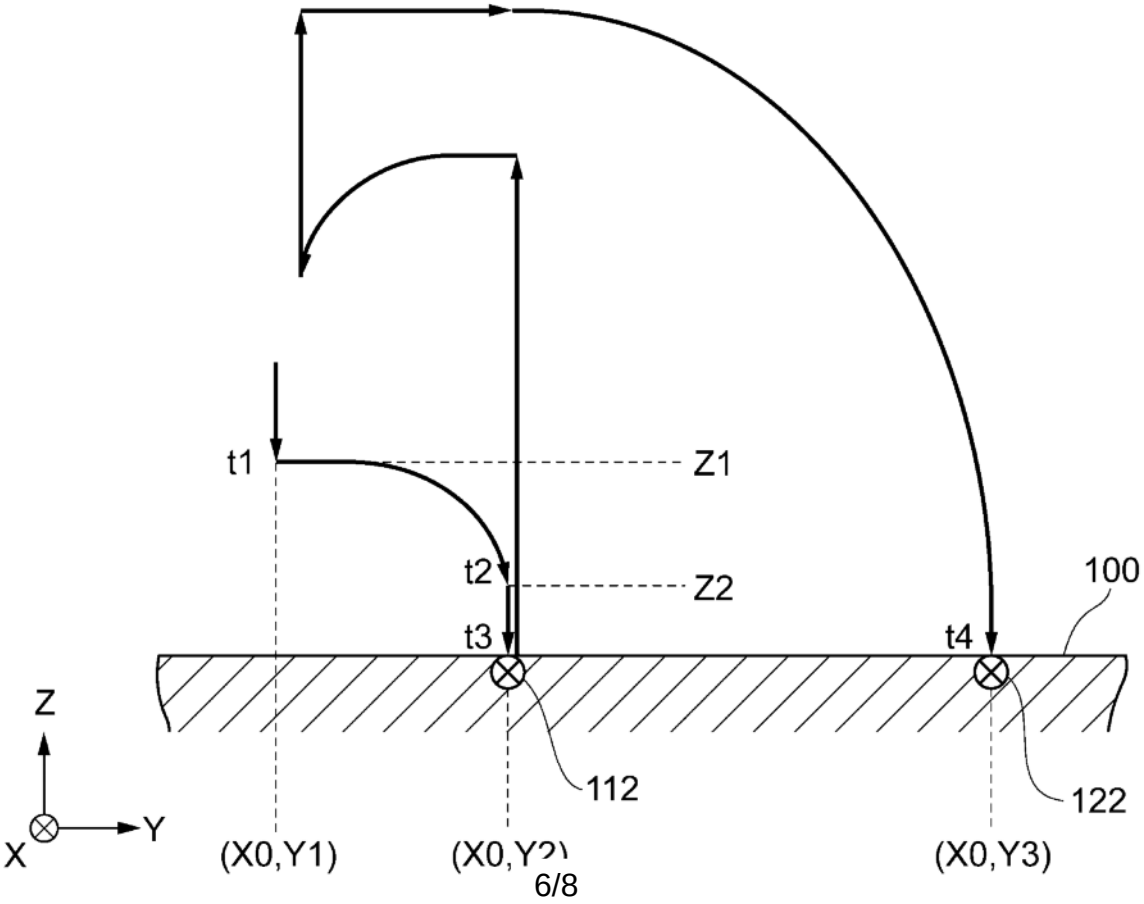
t1
Z1
t2
Z2
t3
t4
100
Z
X
Y
112
122
(X0,Y1)
(X0,Y3)
6/8

FIG. 6

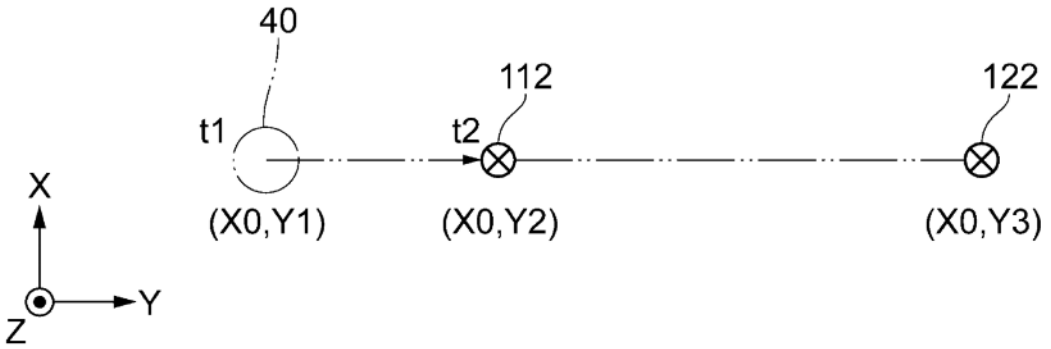
40
112
122
t1
t2
X
Y
Z
(X0,Y1)
(X0,Y2)
(X0,Y3)

FIG. 7

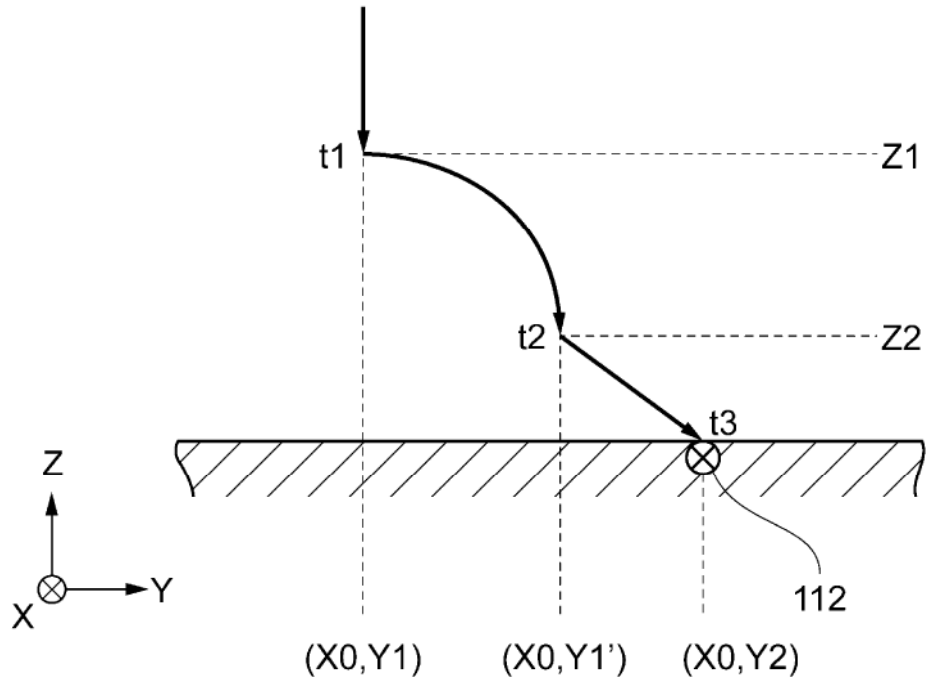
t1
Z1
t2
Z2
t3
Z
Y
X
112
(X0,Y1)
(X0,Y1')
(X0,Y2)

FIG. 8

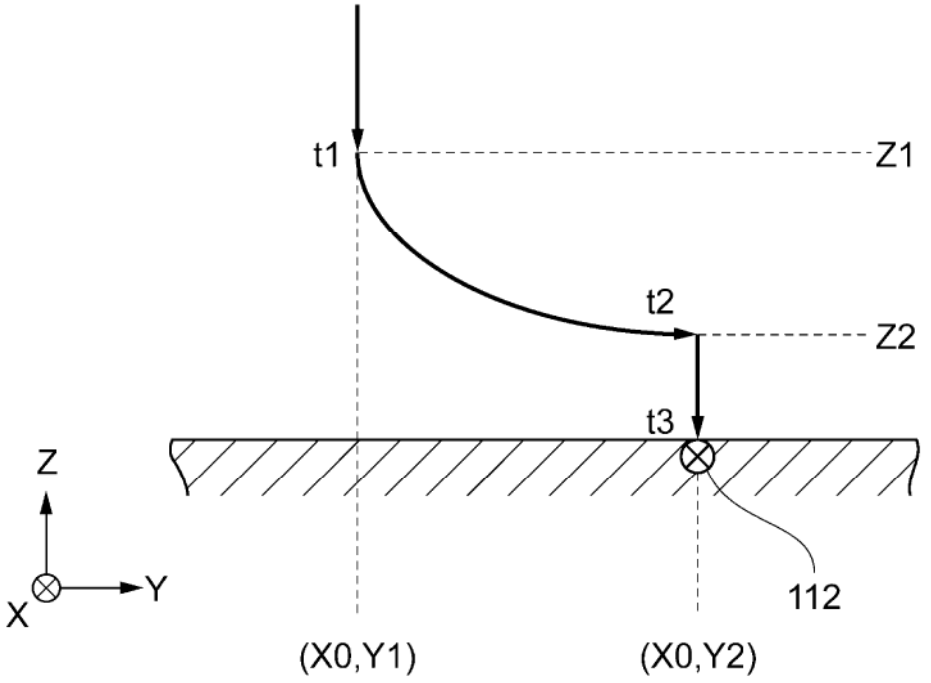
t1
Z1
t2
Z2
t3
Z
Y
X
112
(X0,Y1)
(X0,Y2)

FIG. 9

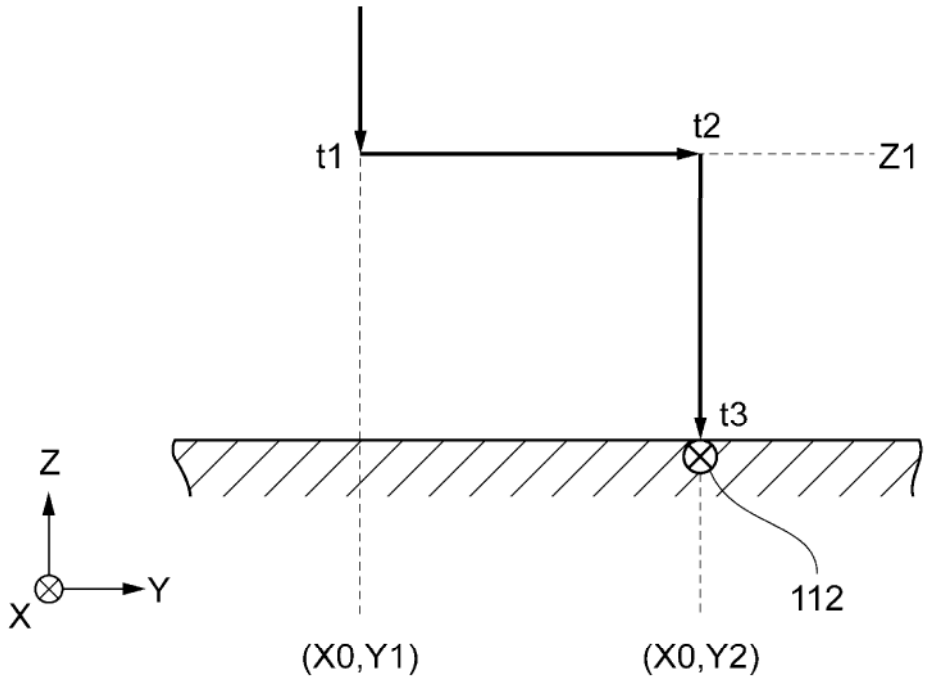

FIG. 10

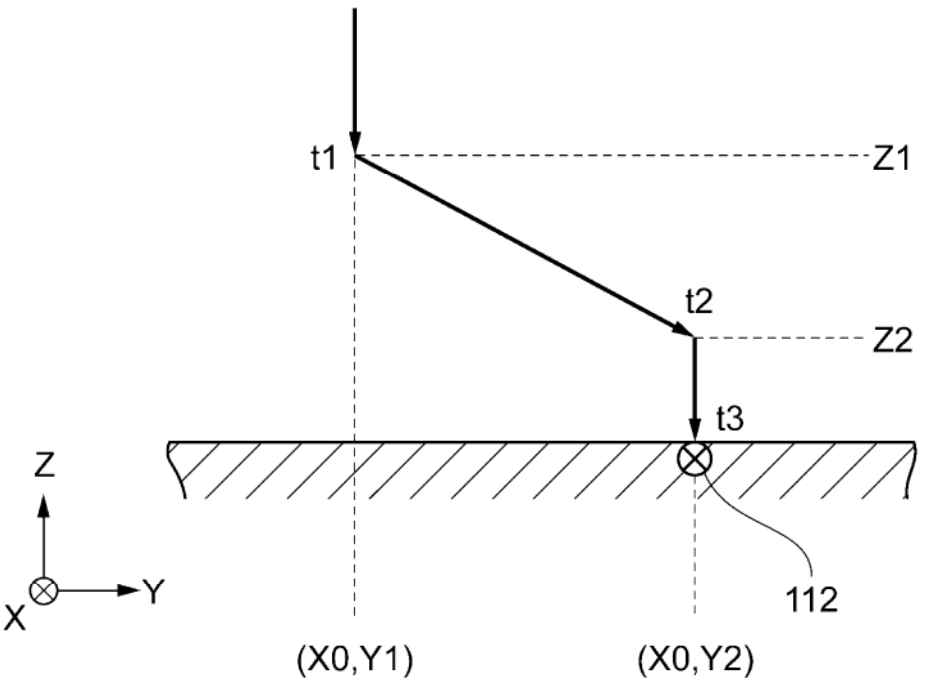

FIG. 11