FIG. 1

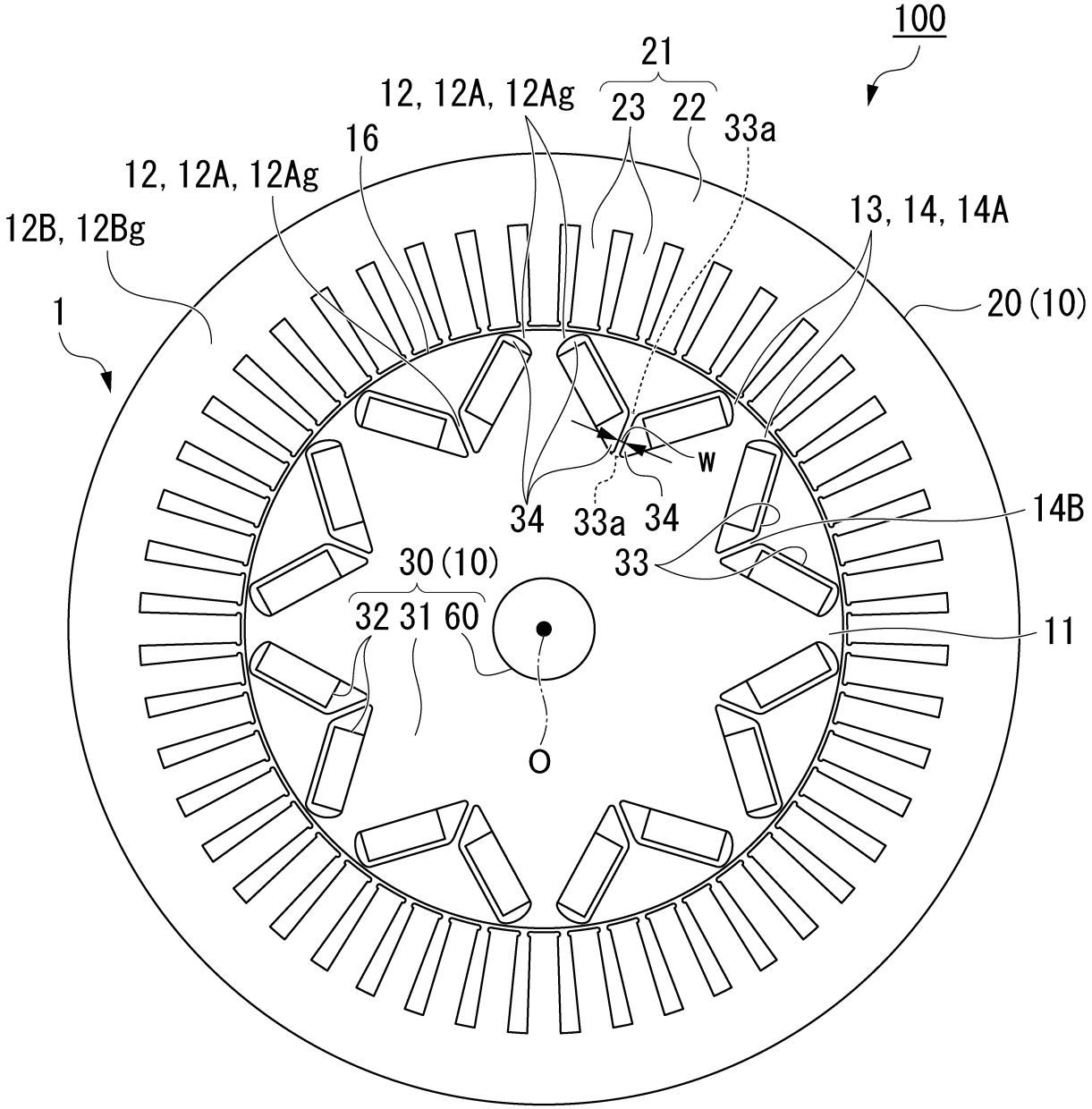

100
21
23
22
12, 12A, 12Ag
16
33a
12, 12A, 12Ag
12B, 12Bg
13, 14, 14A
1
20 (10)
W
34
33a
34
14B
30 (10)
33
32 31 60
11
O

FIG. 2

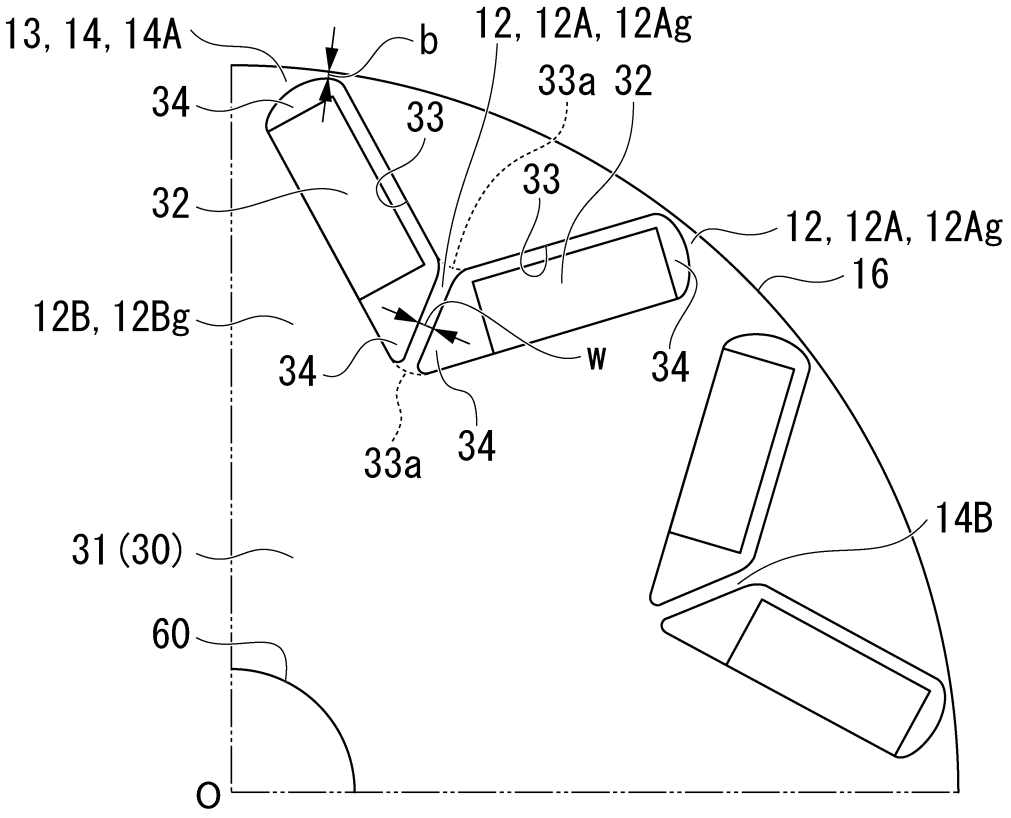

13, 14, 14A
b
12, 12A, 12Ag
33a
32
34
33
32
33
12, 12A, 12Ag
16
12B, 12Bg
34
W
34
34
33a
14B
31 (30)
60
O

FIG. 3

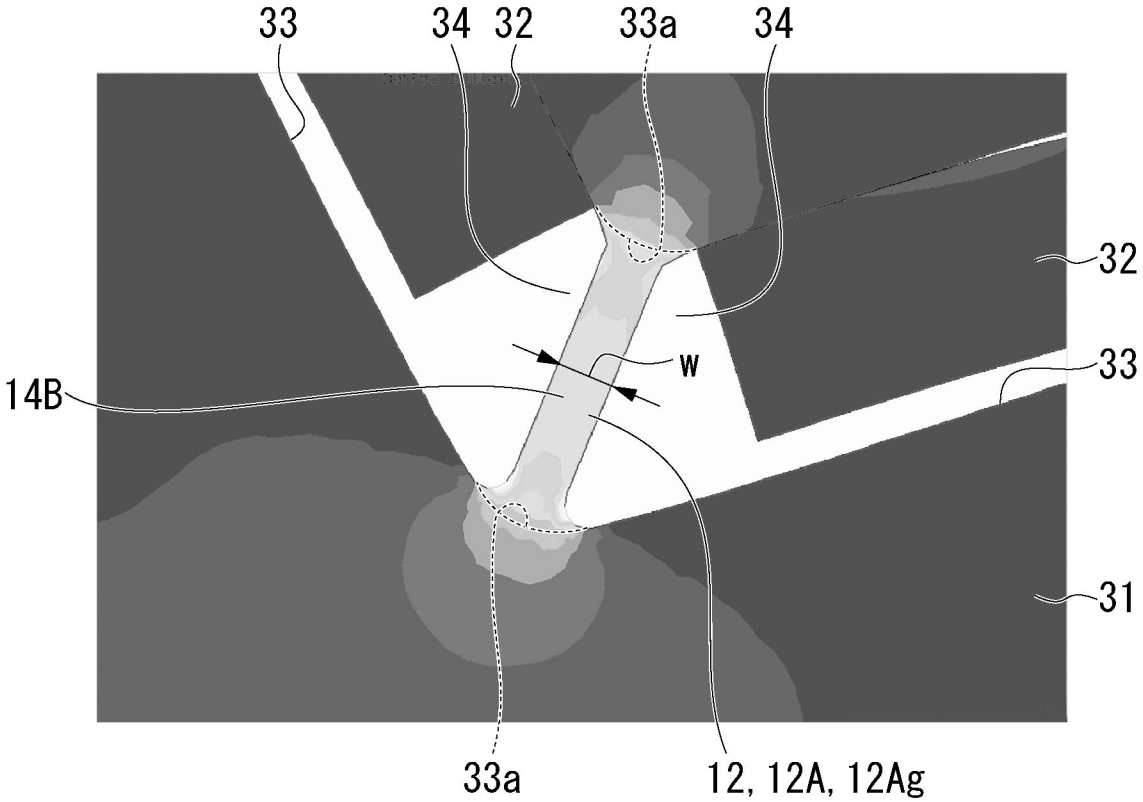

33
34
32
33a
34
32
W
33
14B
31
33a
12, 12A, 12Ag

FIG. 4

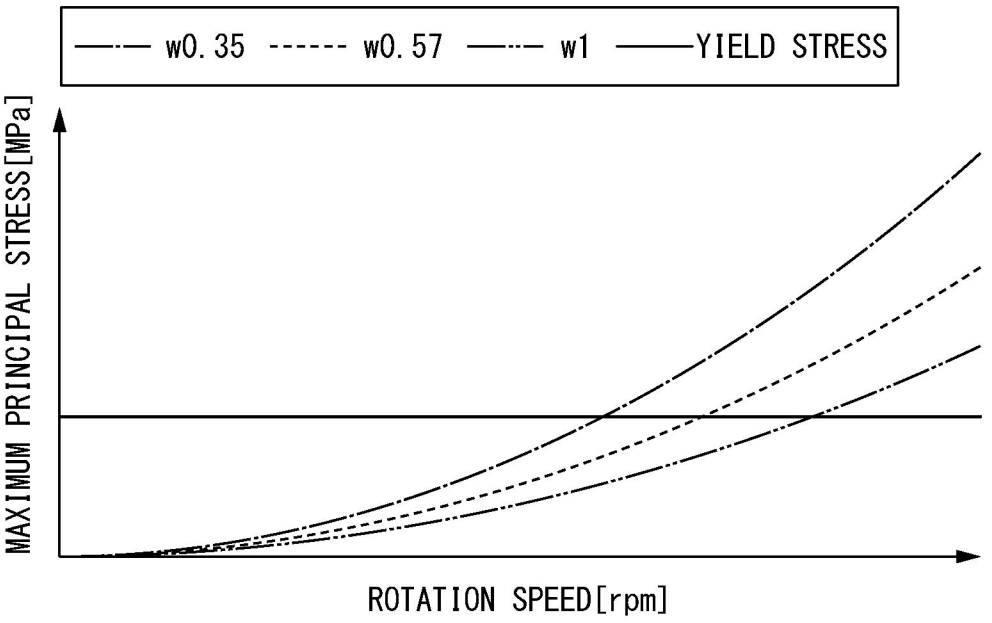

w0.35
w0.57
w1
YIELD STRESS
MAXIMUM PRINCIPAL STRESS[MPa]
ROTATION SPEED[rpm]

FIG. 5

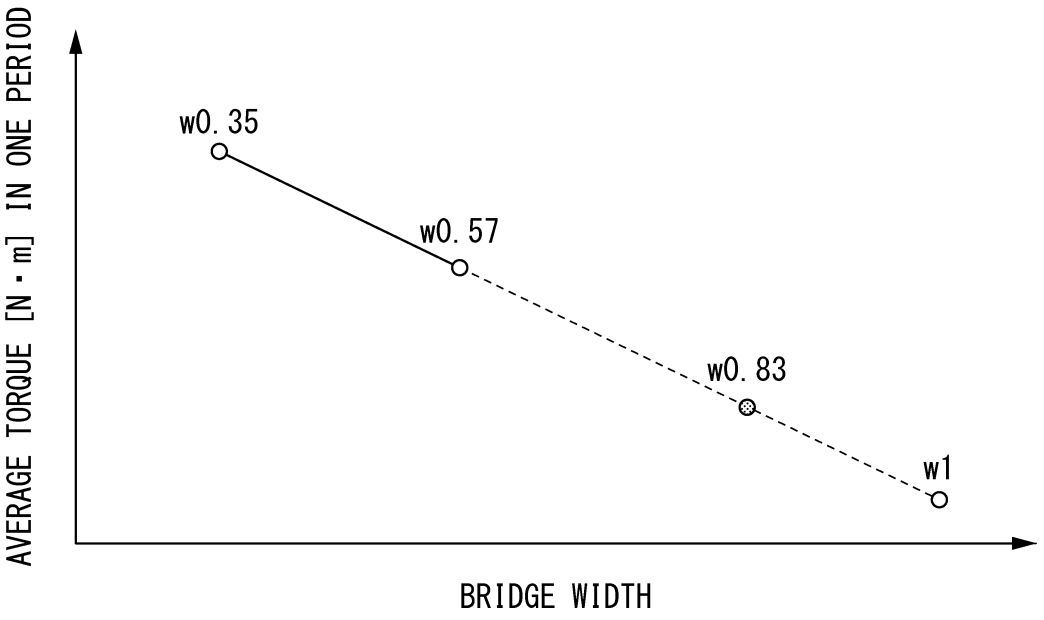

AVERAGE TORQUE [N・m] IN ONE PERIOD
w0.35
w0.57
w0.83
w1
BRIDGE WIDTH

FIG. 6

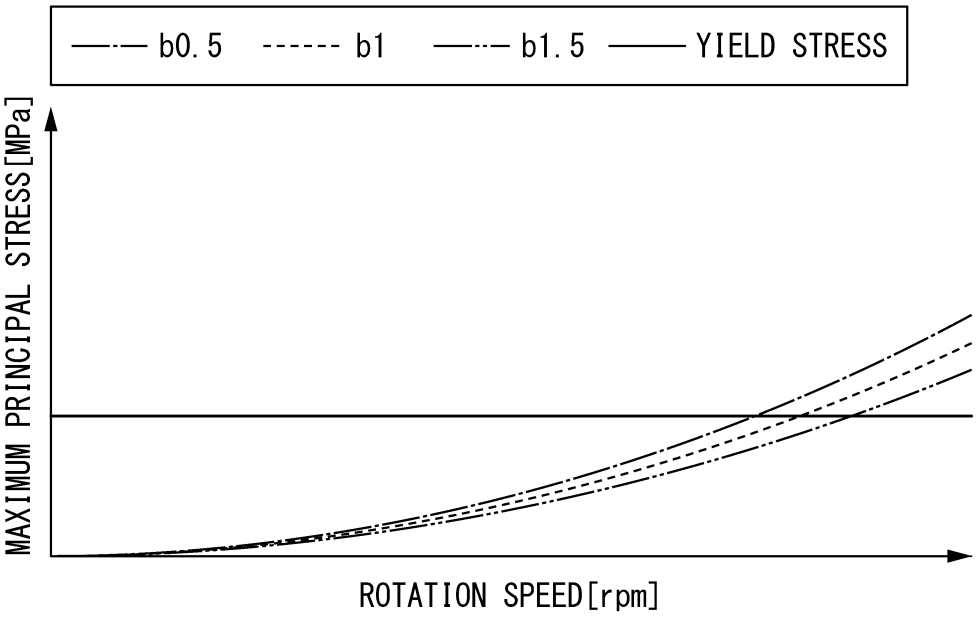

b0.5
b1
b1.5
YIELD STRESS
MAXIMUM PRINCIPAL STRESS[MPa]
ROTATION SPEED[rpm]

FIG. 7

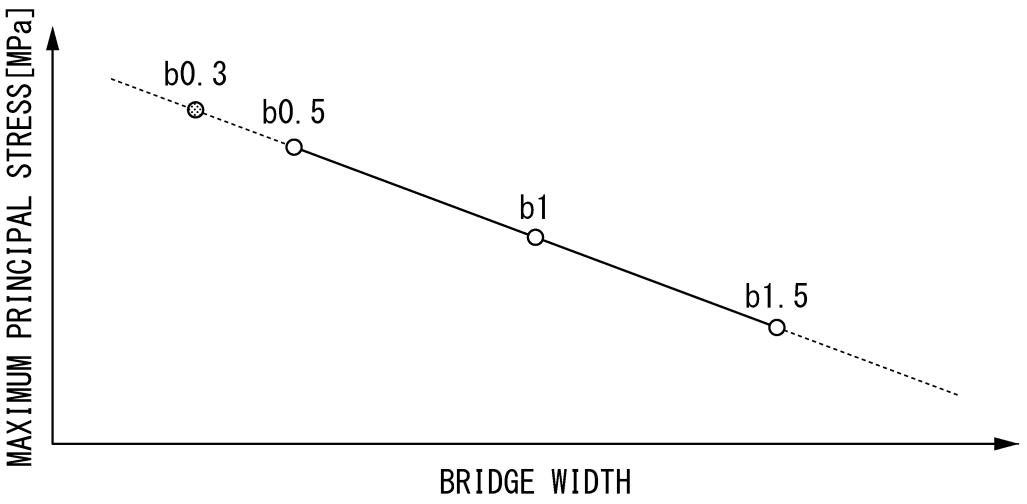

MAXIMUM PRINCIPAL STRESS[MPa]
b0.3
b0.5
b1
b1.5
BRIDGE WIDTH

FIG. 8

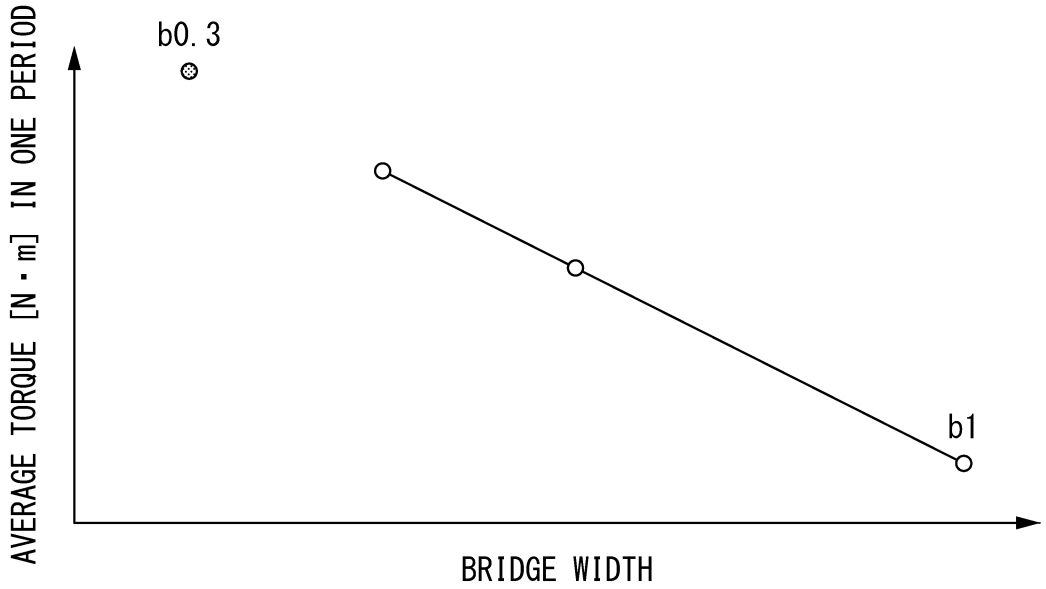

AVERAGE TORQUE [N・m] IN ONE PERIOD
b0.3
b1
BRIDGE WIDTH

FIG. 9

