DRAWINGS

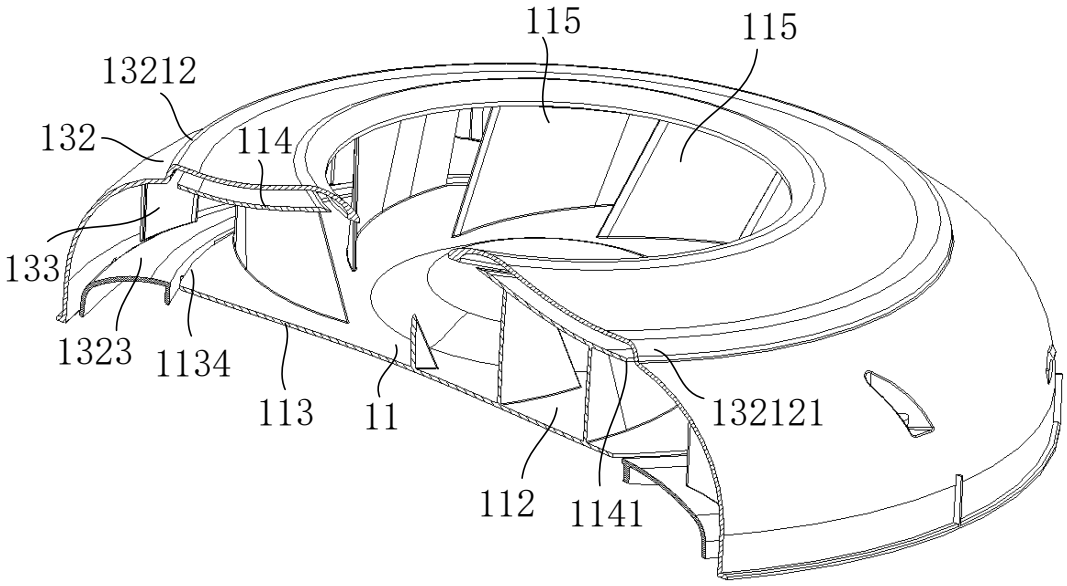


FIG. 1

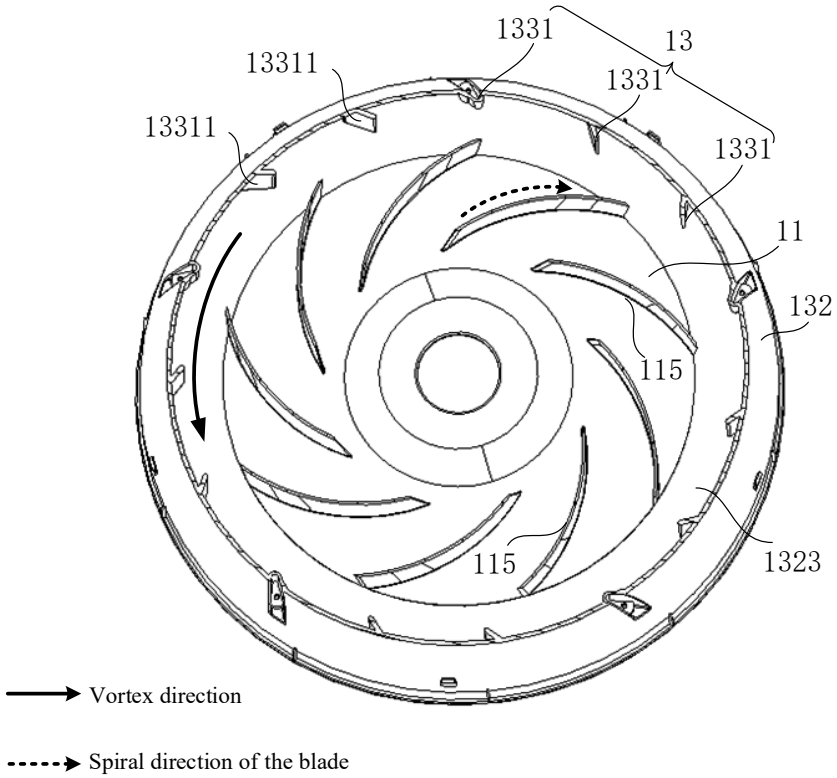


FIG. 2

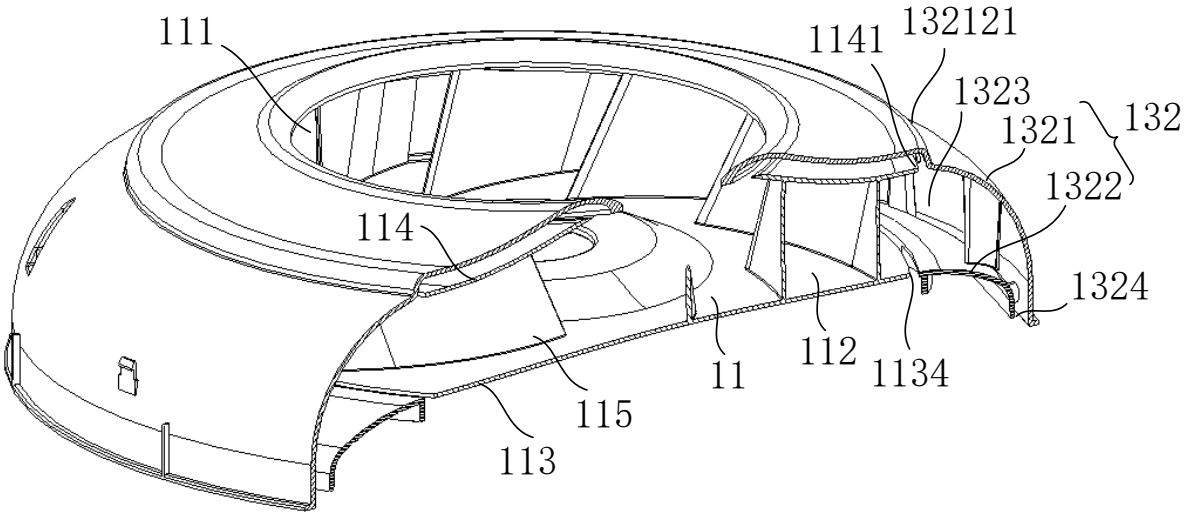

111
1141
132121
1323
1321
132
1322
114
1324
112
11
1134
115
113

FIG. 3

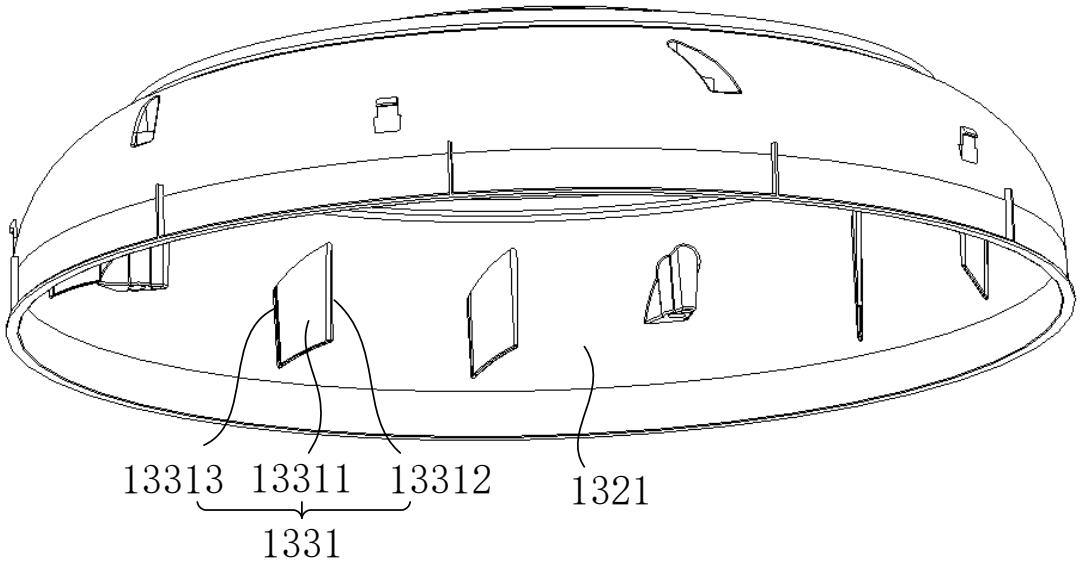

13313
13311
13312
1321
1331

FIG. 4

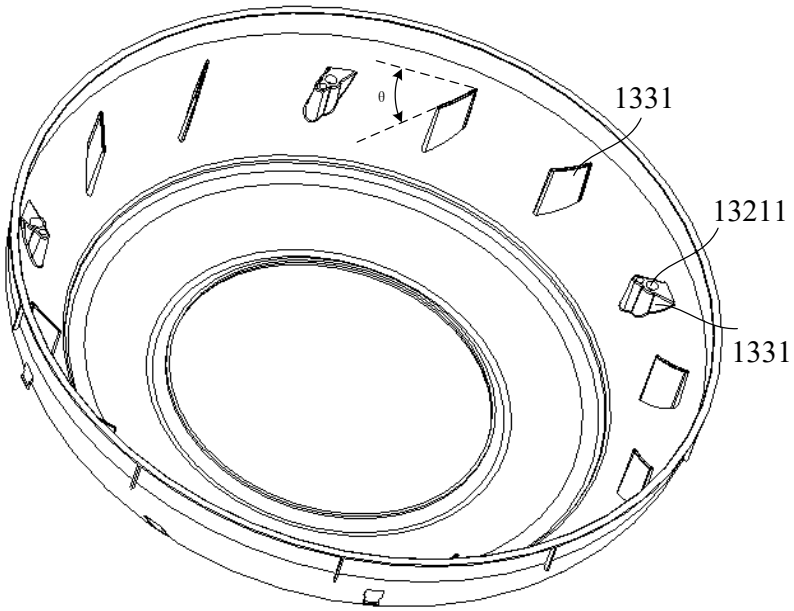


FIG. 5

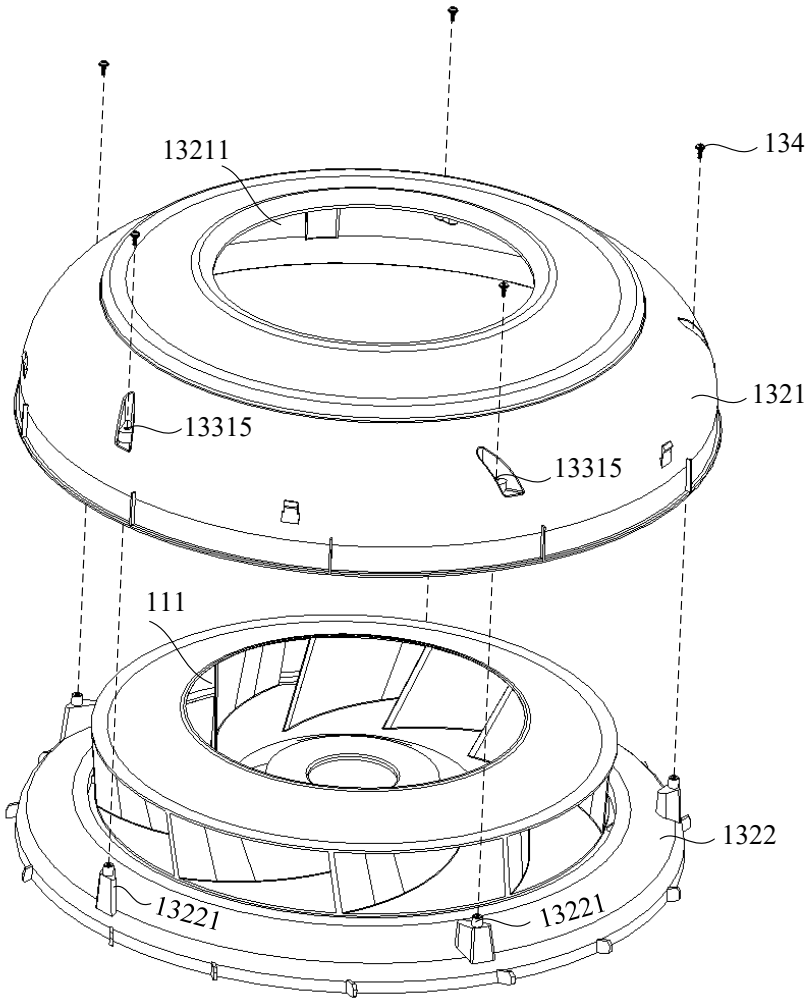


FIG. 6

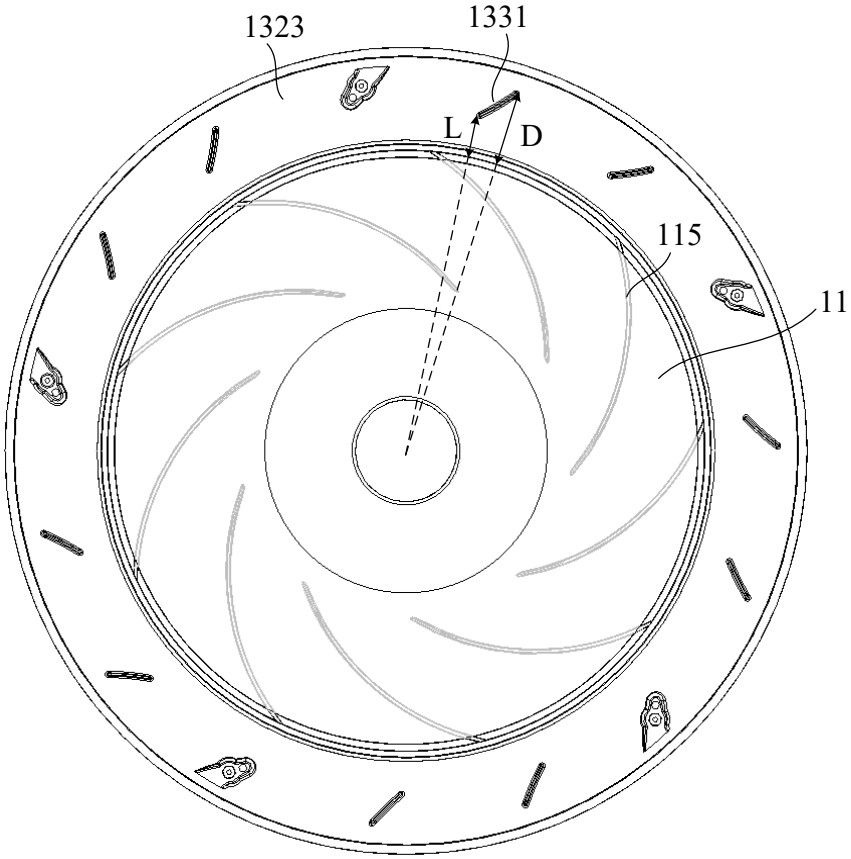


FIG. 7

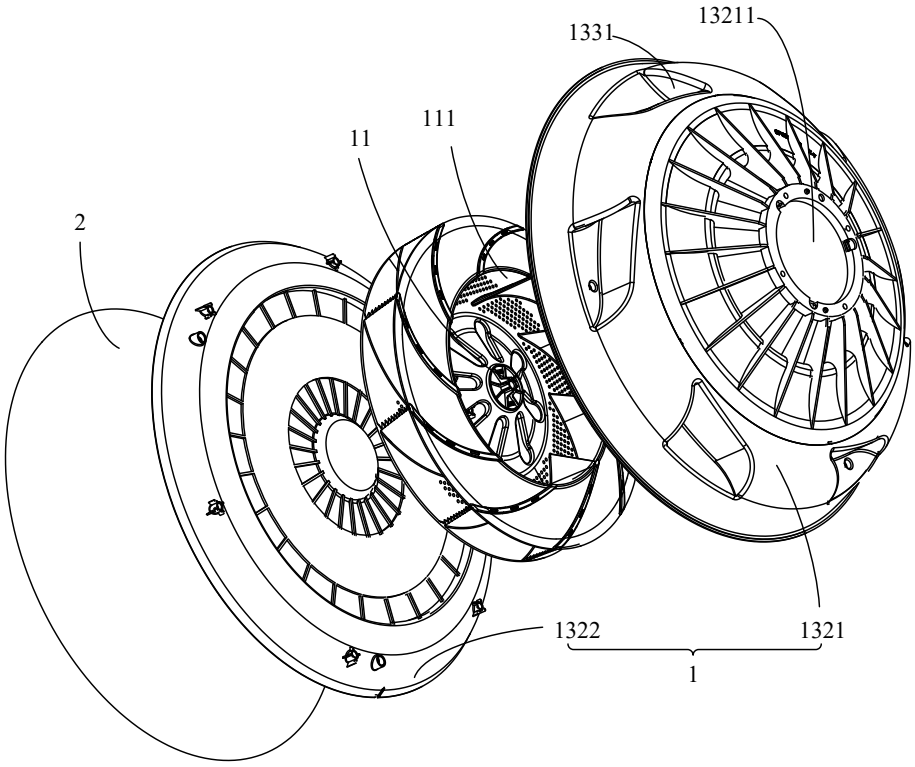

13211
1331
111
11
2
1322
1321
1

FIG. 8

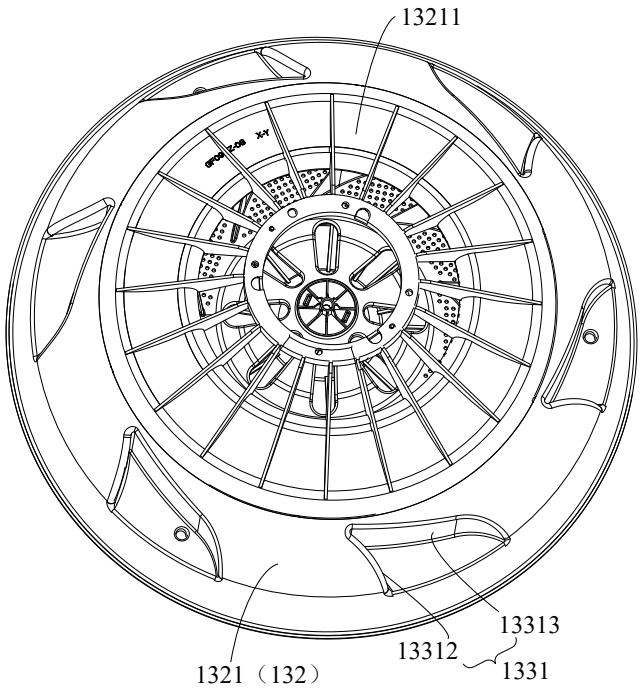

13211
13313
13312
1331
1321（132）

FIG. 9

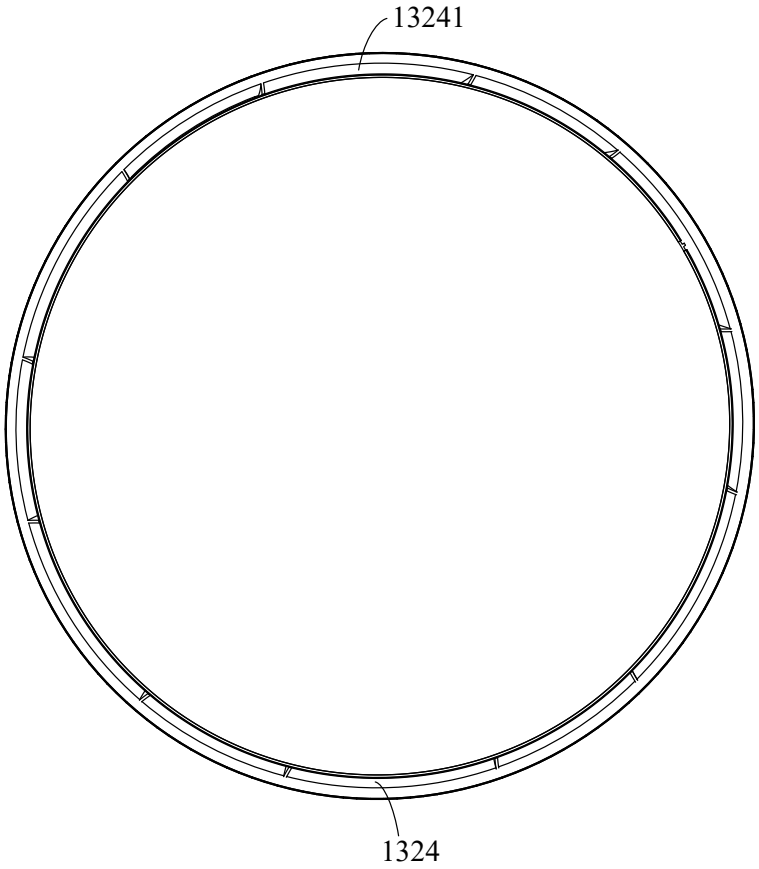


FIG. 10

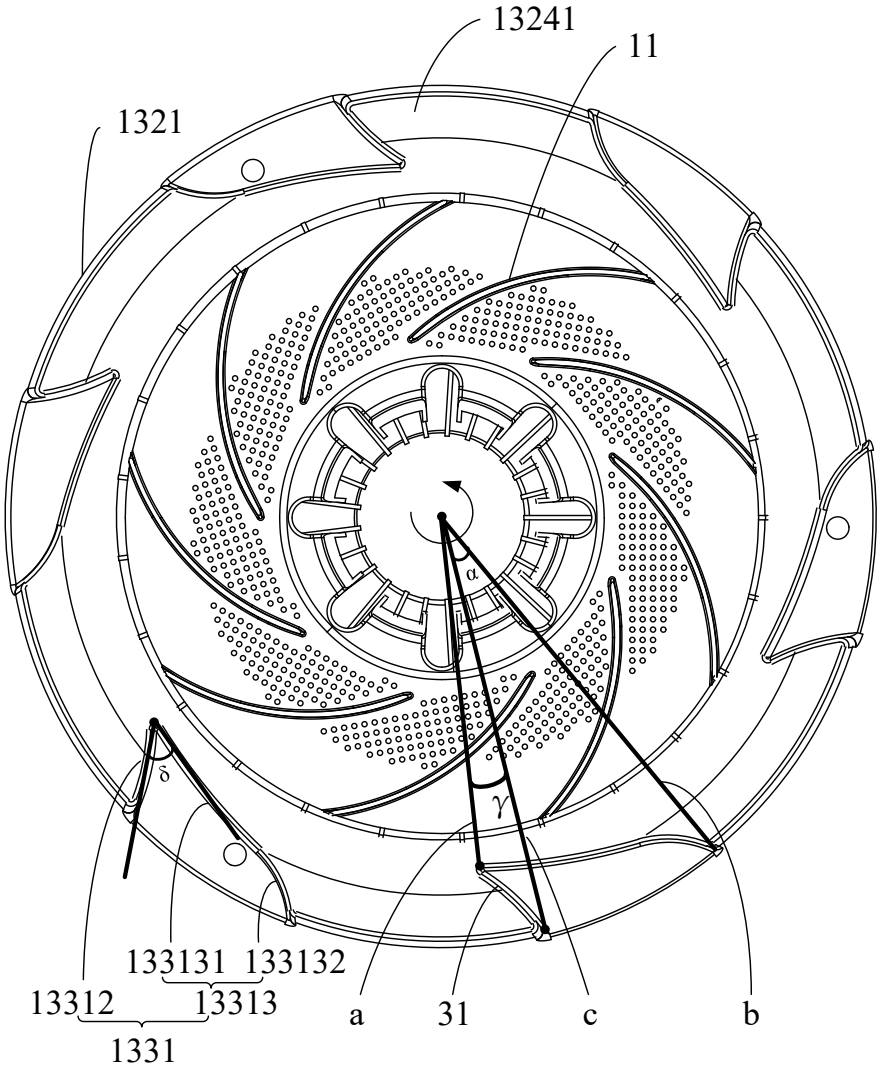


FIG. 11

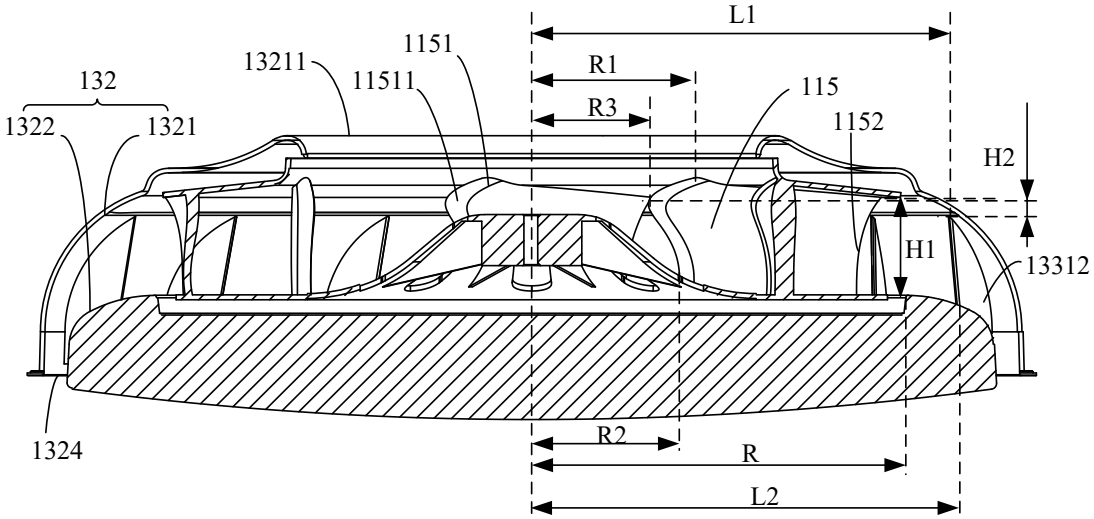

L1
1151
13211
11511
R1
R3
115
1152
132
1322
1321
H2
H1
13312
1324
R2
R
L2

FIG. 12

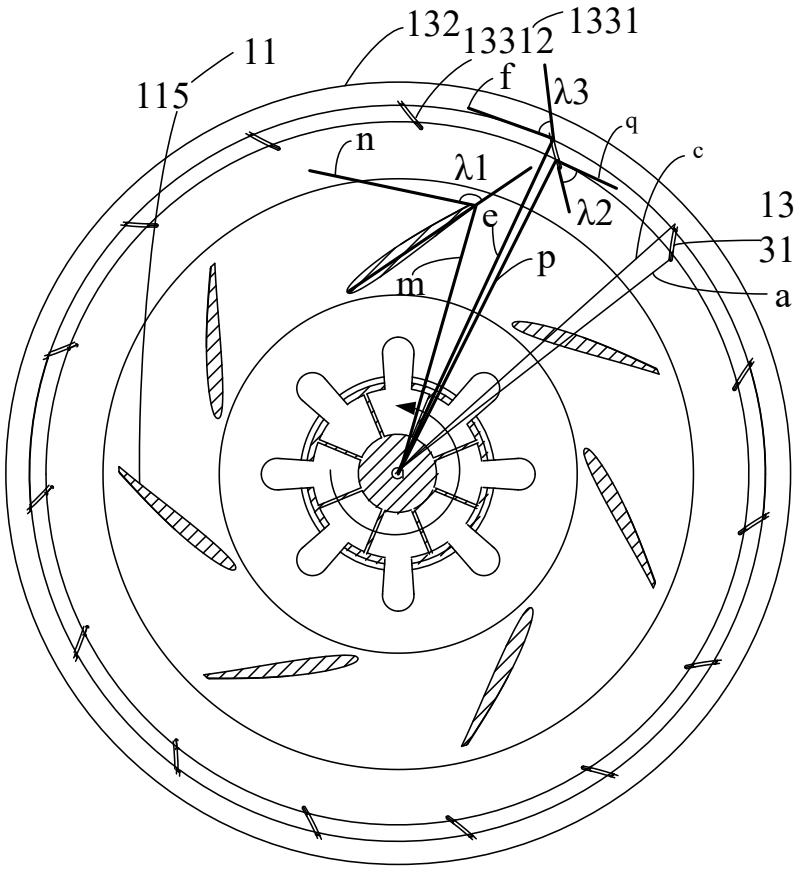

132
13312
1331
11
115
f
λ3
q
c
n
λ1
λ2
e
13
31
p
m
a

FIG. 13

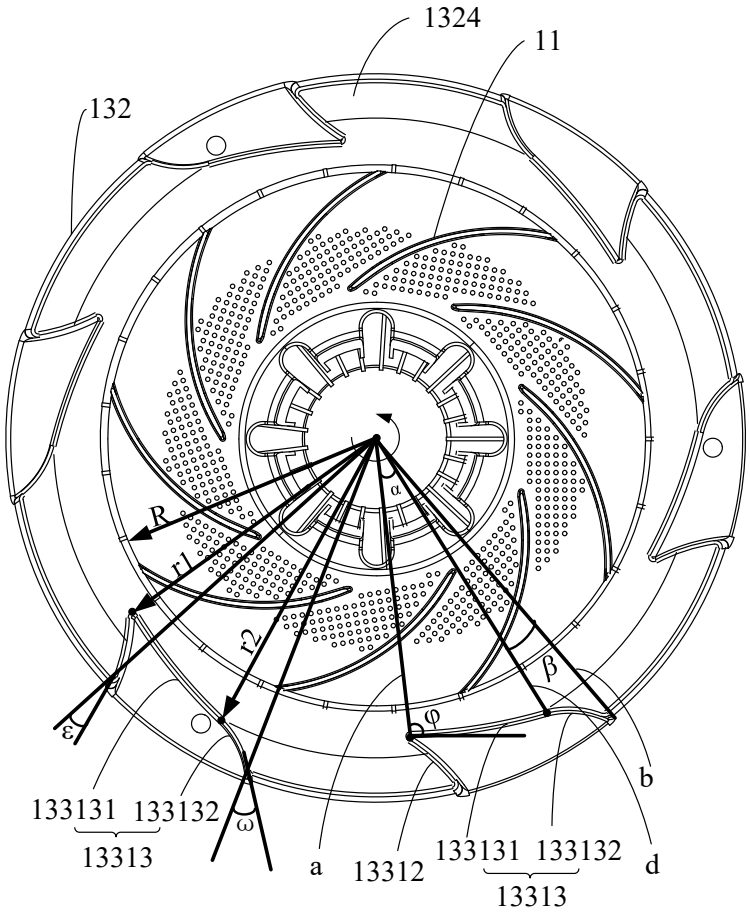

1324
11
132
α
R
r1
r2
β
ε
φ
b
133131
133132
ω
13313
a
13312
133131
133132
d
13313

FIG. 14

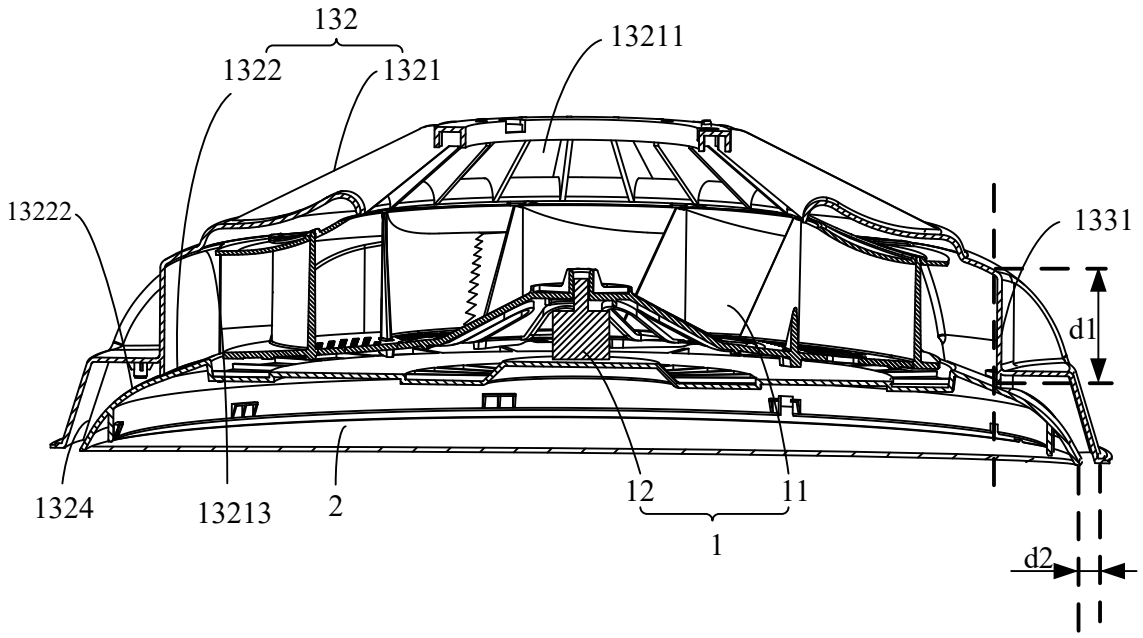

132
1322
1321
13211
13222
1331
d1
1324
13213
2
12
11
1
d2

FIG. 15

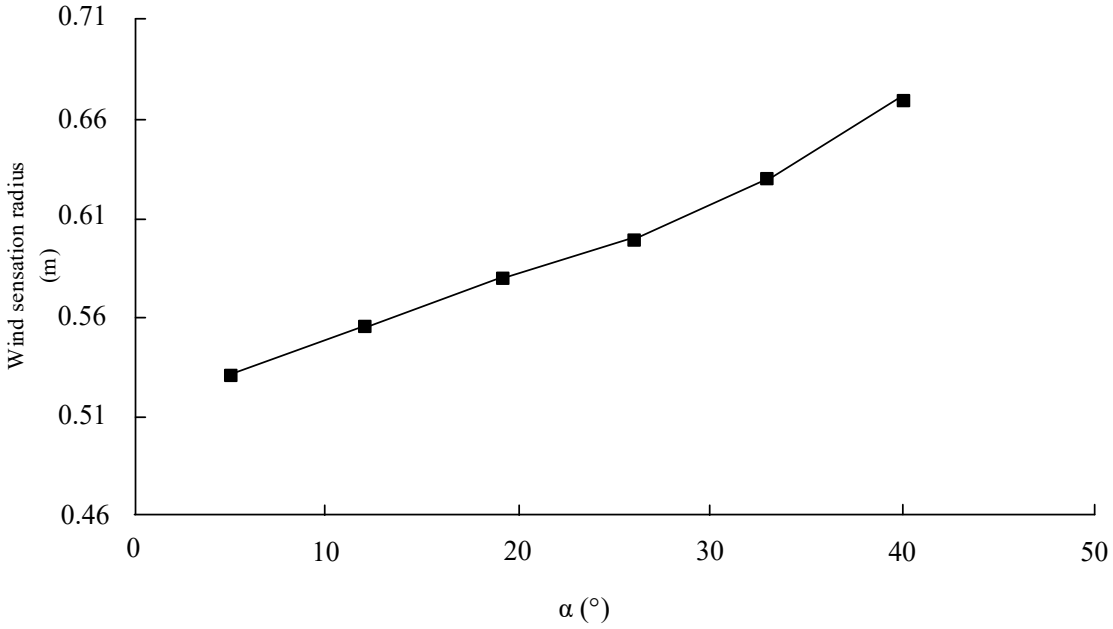

0.71
0.66
0.61
0.56
0.51
0.46
Wind sensation radius (m)
0
10
20
30
40
50
α (°)

FIG. 16

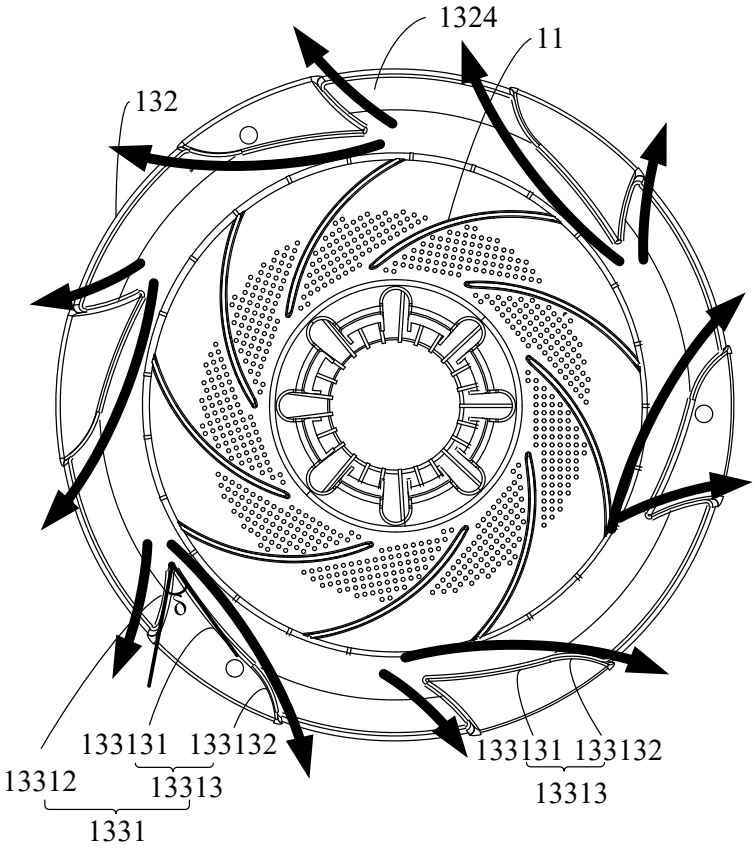

1324
11
132
133131
133132
13312
13313
1331
133131
133132
13313

FIG. 17

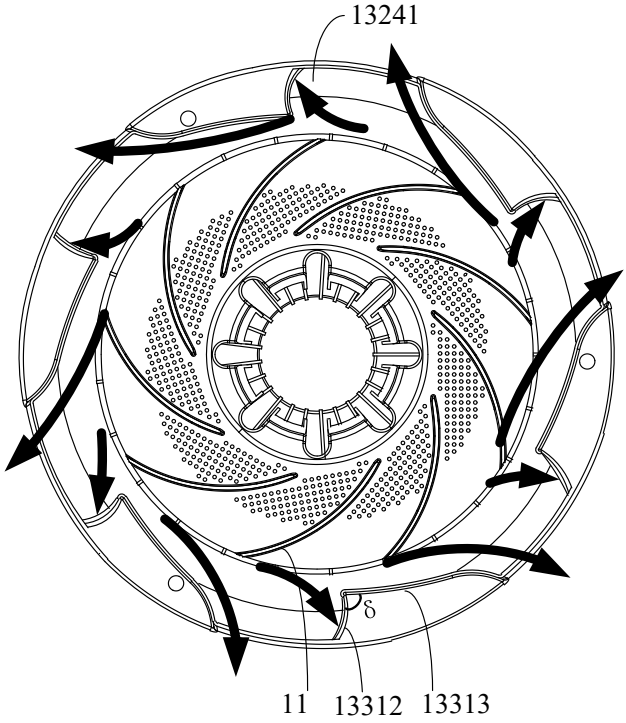


FIG. 18

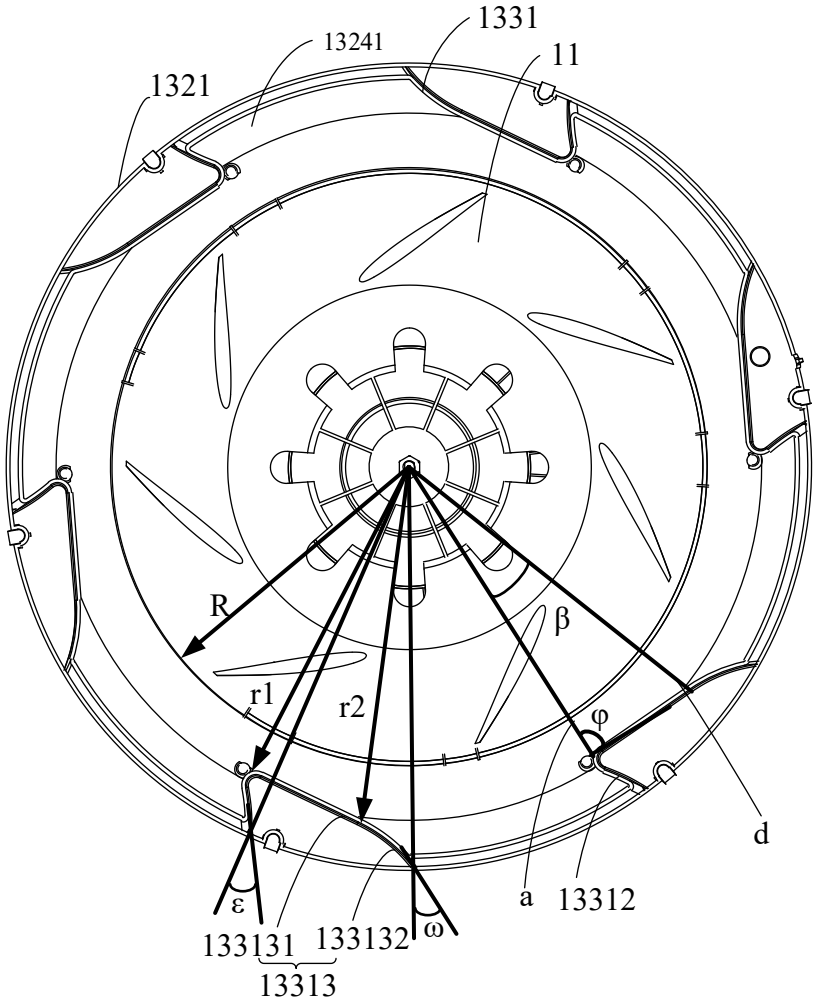


FIG. 19

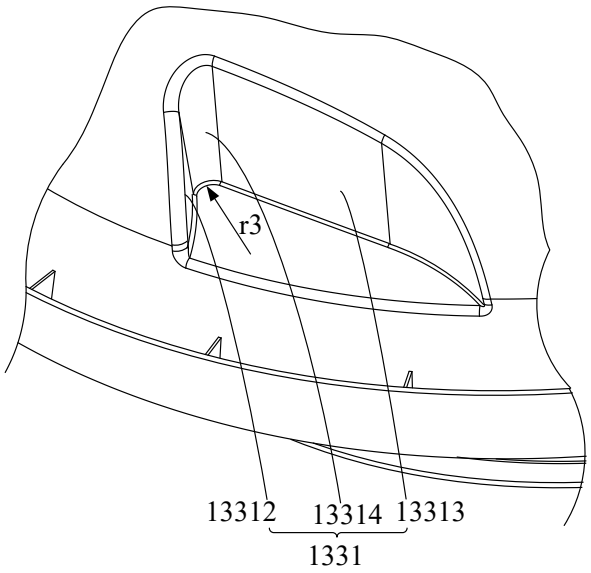


FIG. 20

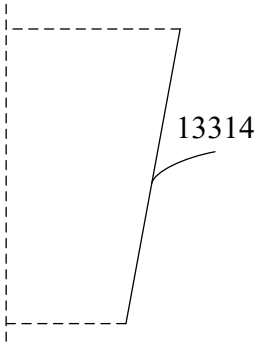


FIG. 21

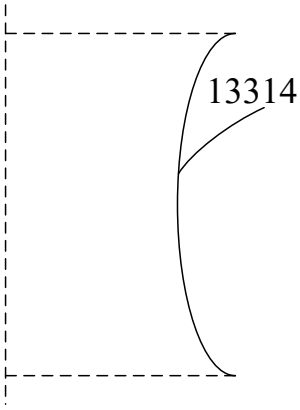


FIG. 22

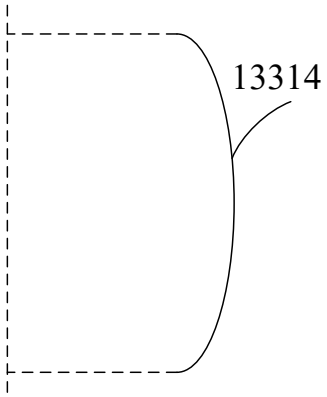


FIG. 23

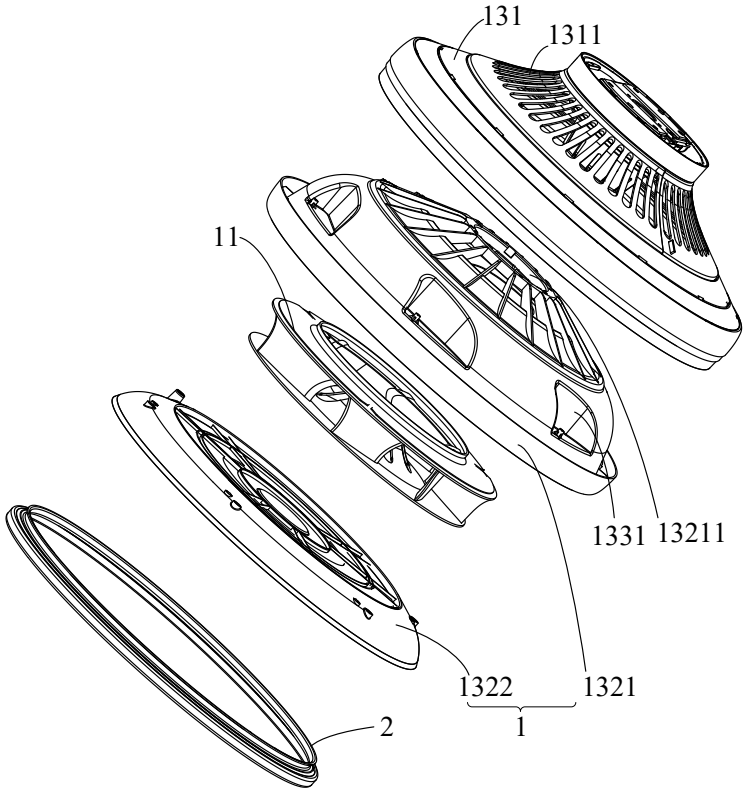


FIG. 24

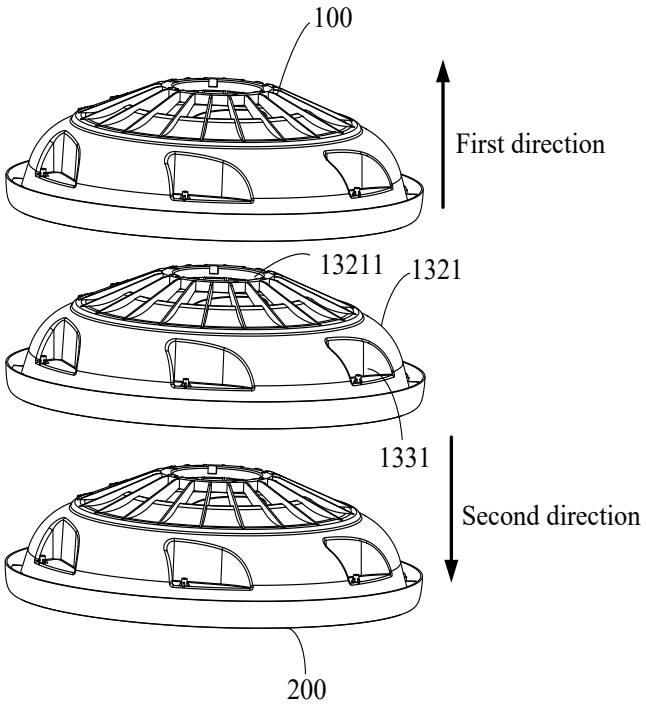

100
First direction
13211
1321
1331
Second direction
200

FIG. 25

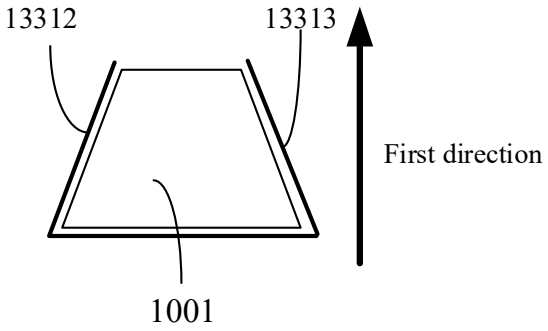

13312
13313
First direction
1001

FIG. 26

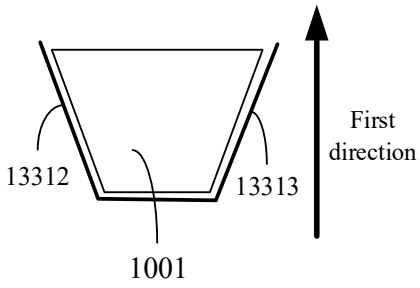


FIG. 27

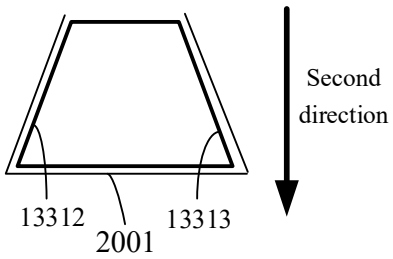


FIG. 28

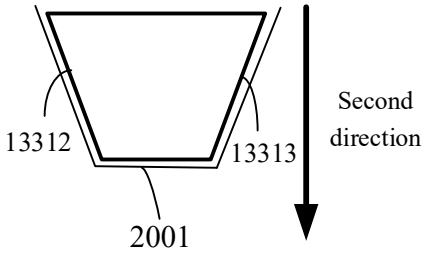


FIG. 29

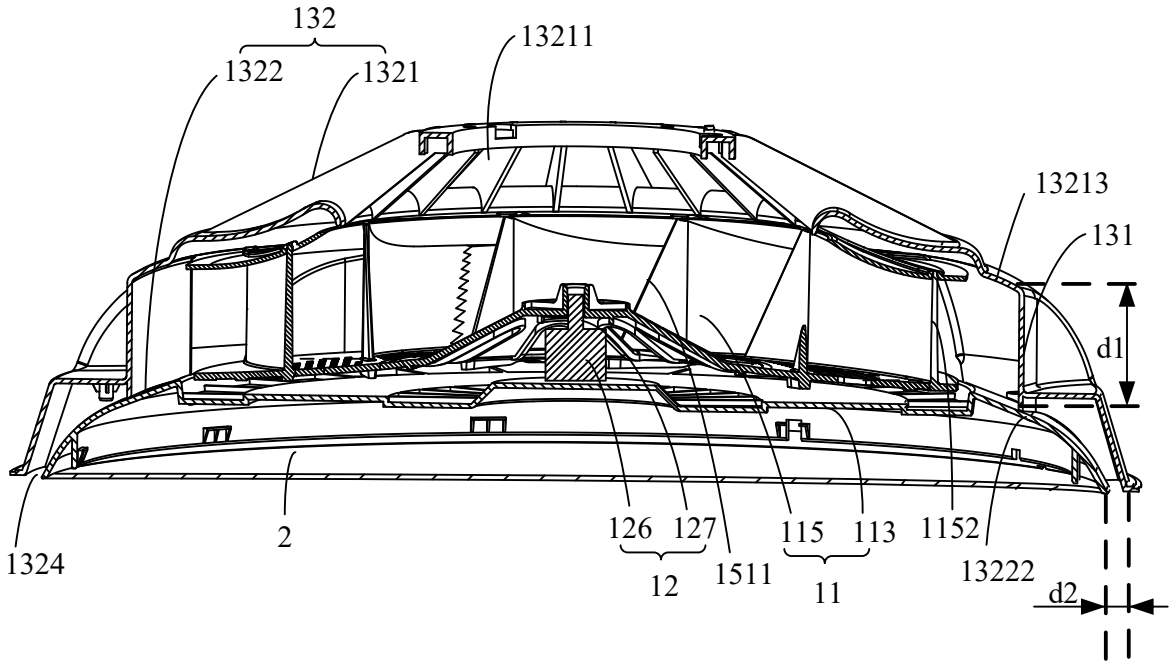

132
1322
1321
13211
13213
131
d1
1324
2
126
127
115
113
1152
1511
12
11
13222
d2

FIG. 30

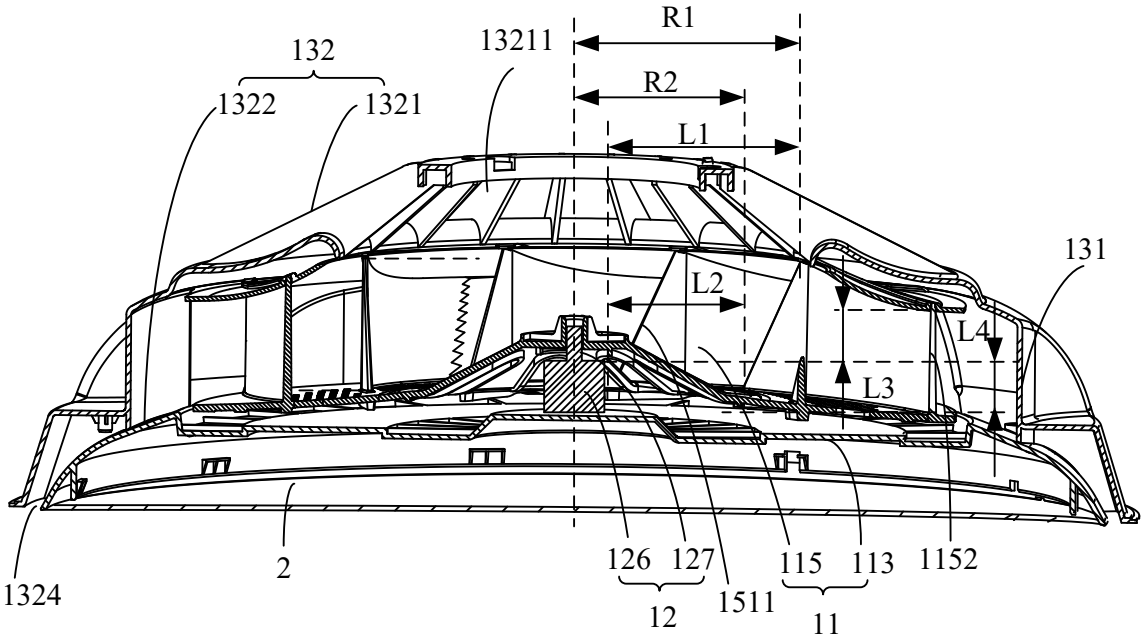

R1
R2
L1
L2
L3
L4
132
1322
1321
13211
131
1324
2
126
127
115
113
1152
1511
12
11

FIG. 31

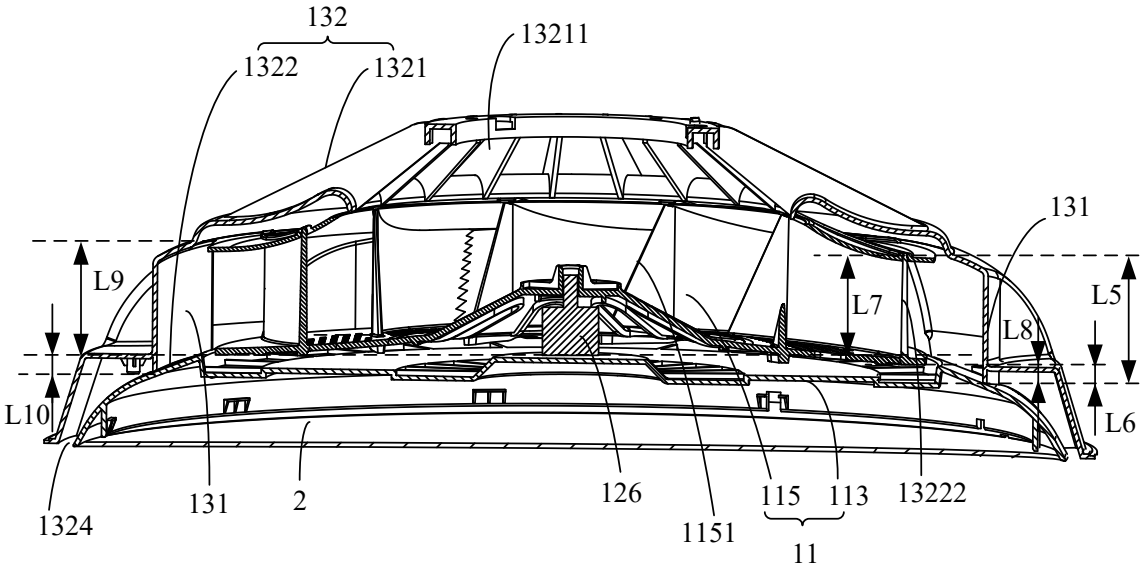

132
1322
1321
13211
131
L9
L7
L5
L8
L10
L6
1324
131
2
126
1151
115
113
13222
11

FIG. 32

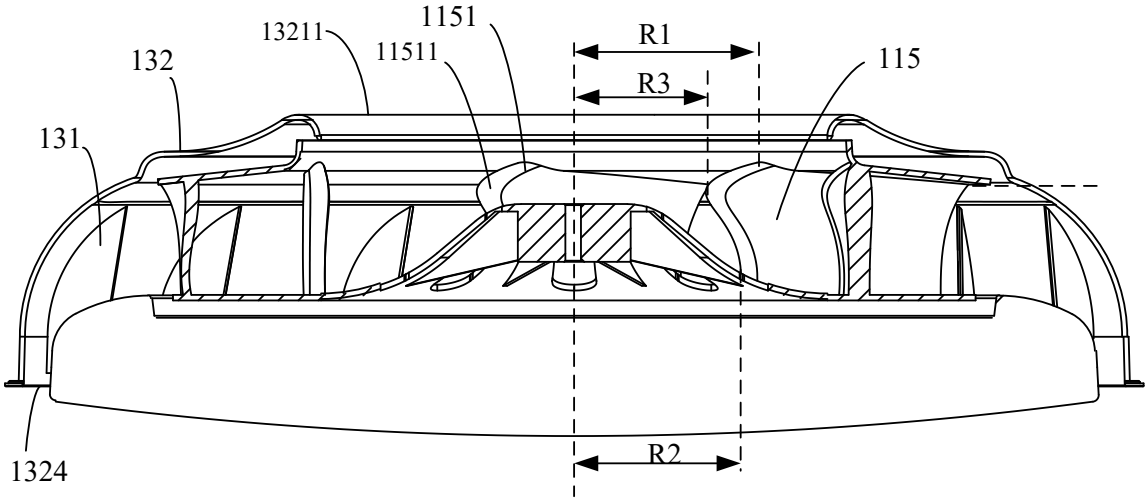

1151
13211
11511
R1
R3
132
115
131
1324
R2

FIG. 33

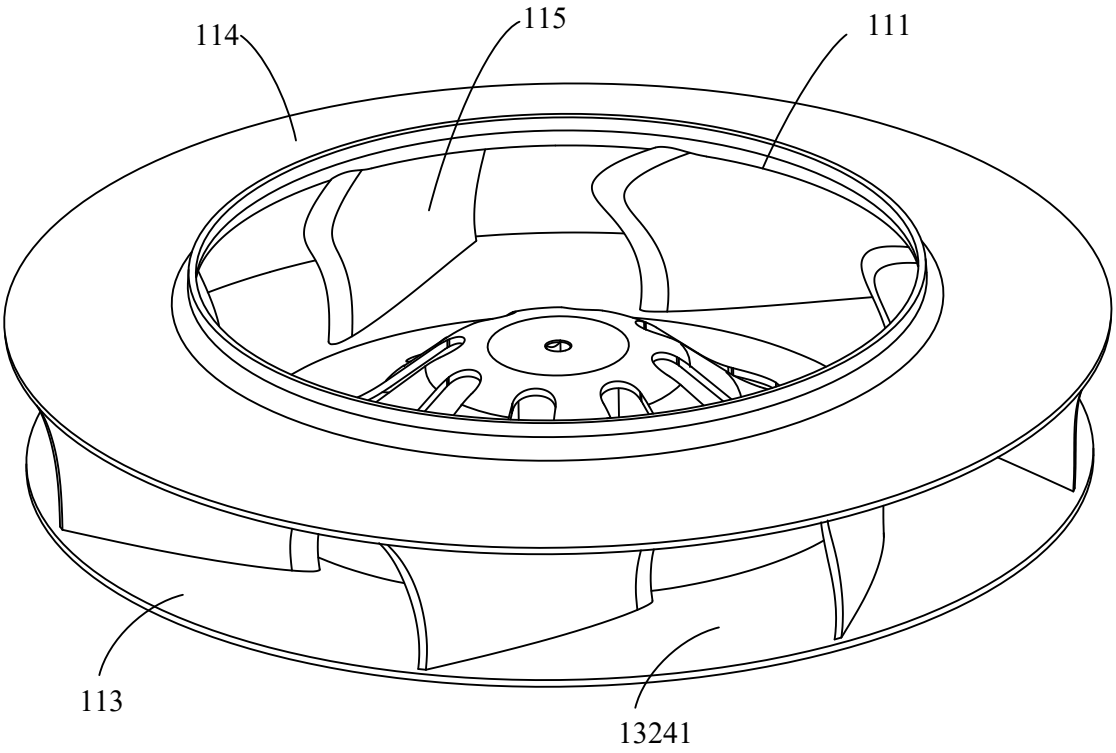


FIG. 34

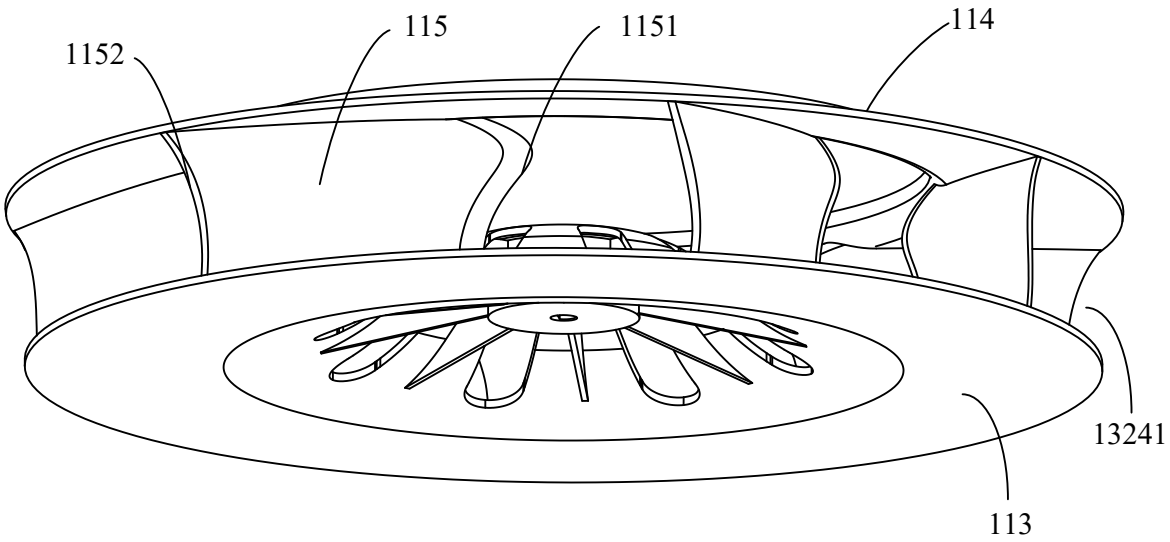


FIG. 35

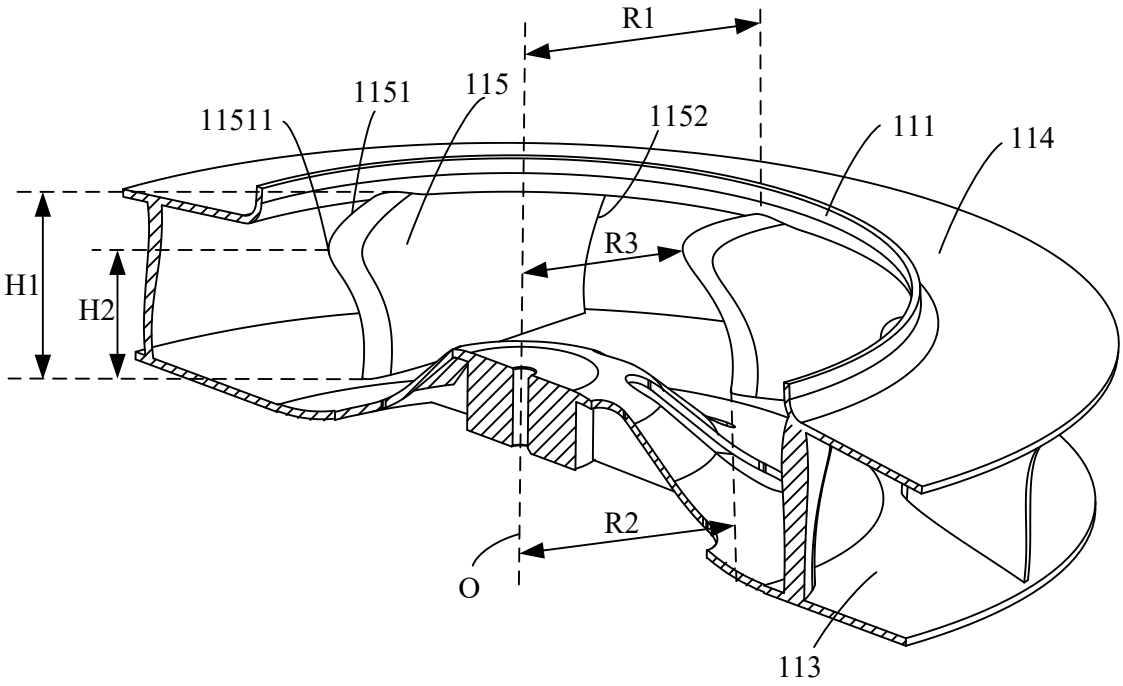

R1
1151
115
11511
1152
111
114
H1
H2
R3
R2
O
113

FIG. 36

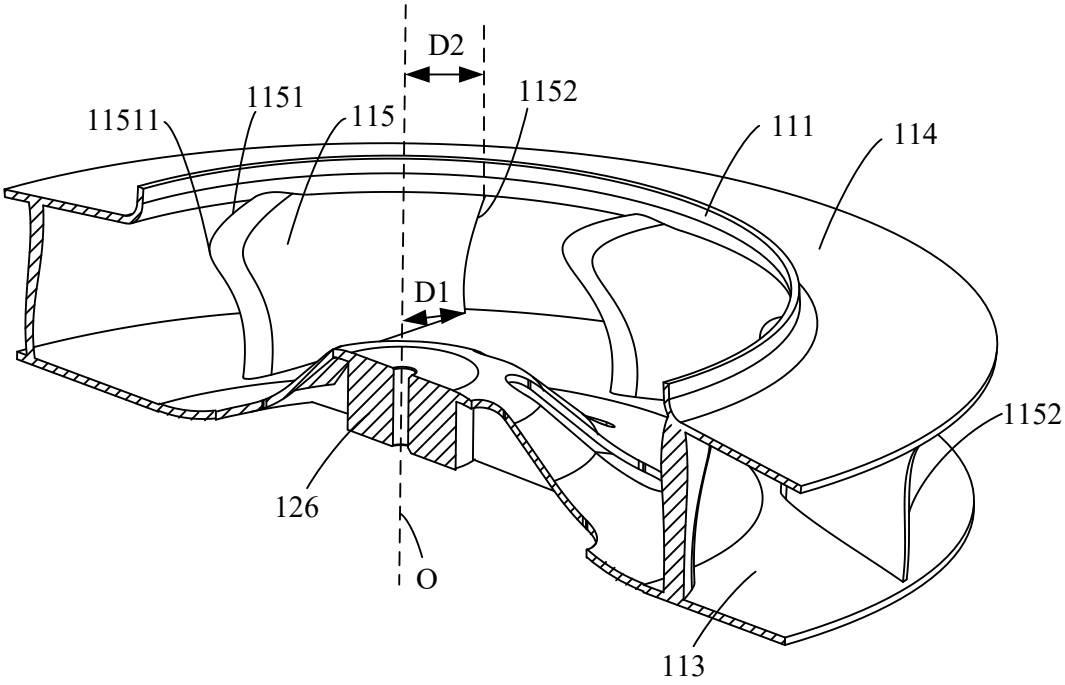

D2
1151
11511
115
1152
111
114
D1
1152
126
O
113

FIG. 37

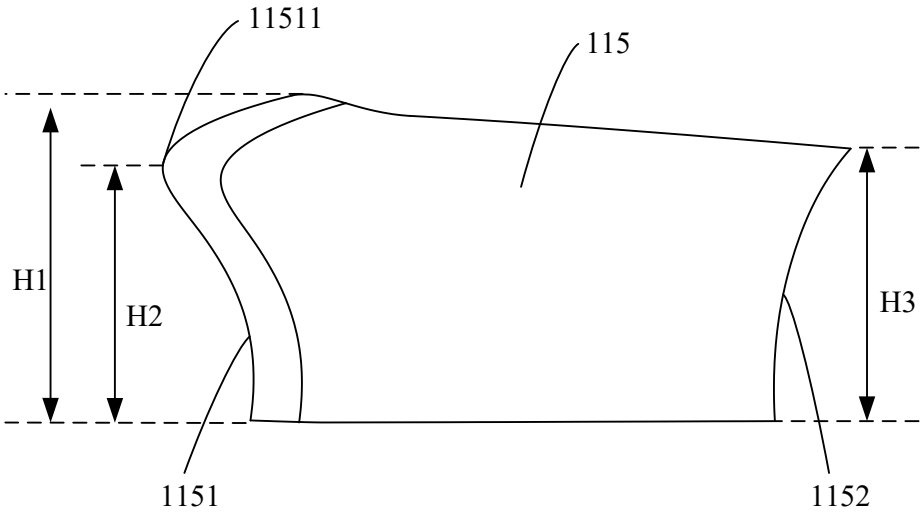


FIG. 38

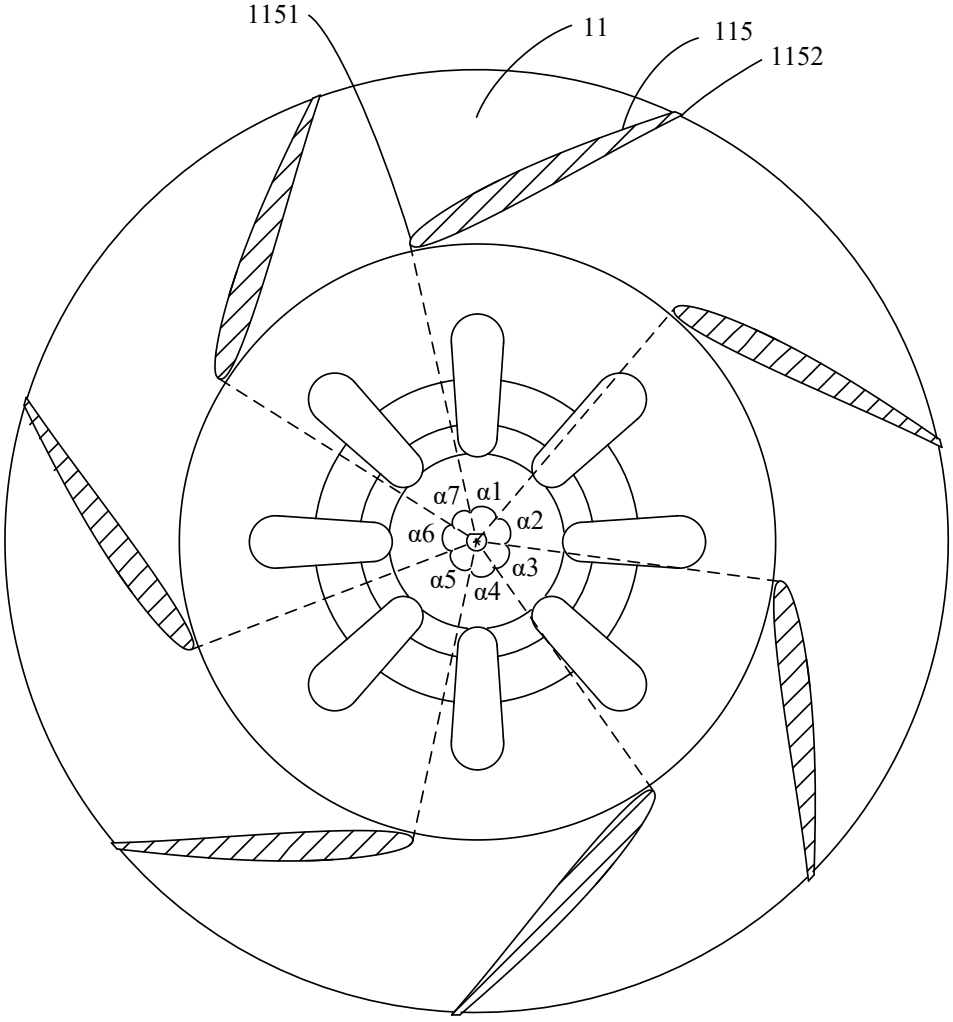


FIG. 39