FIG. 1

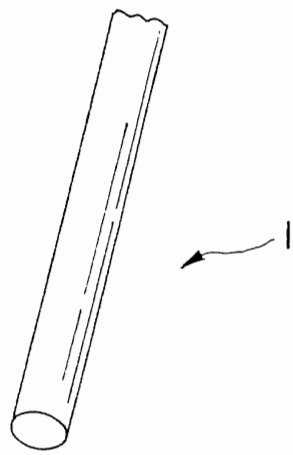



FIG. 2

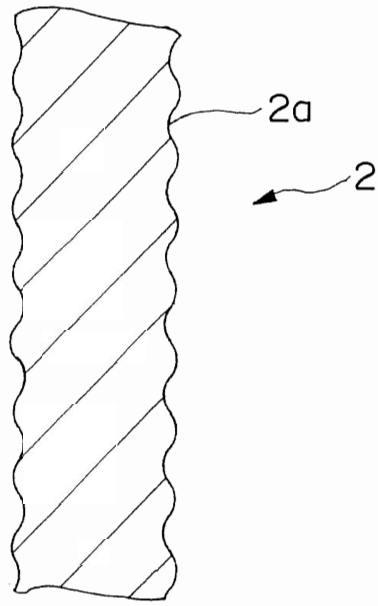


FIG. 3

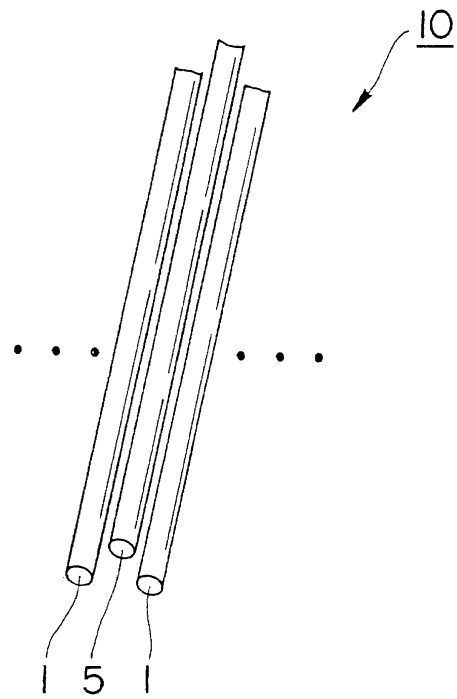
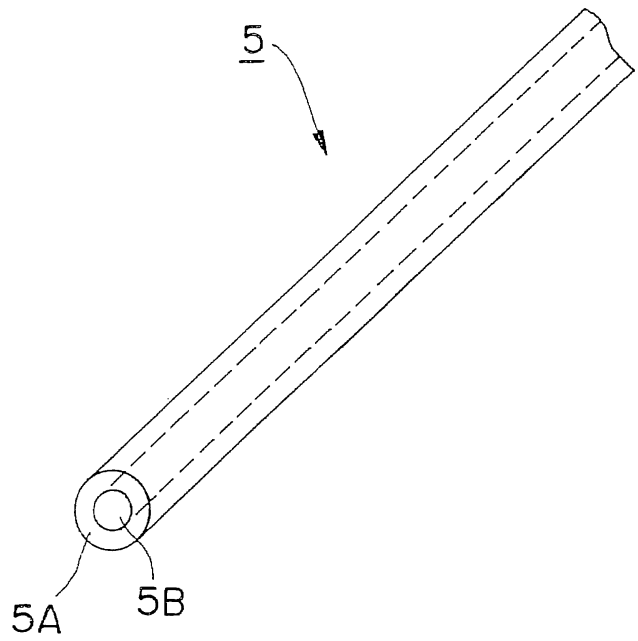


FIG. 4

(A)




(B)

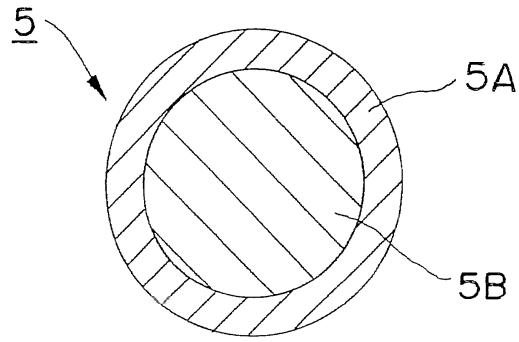


FIG. 5

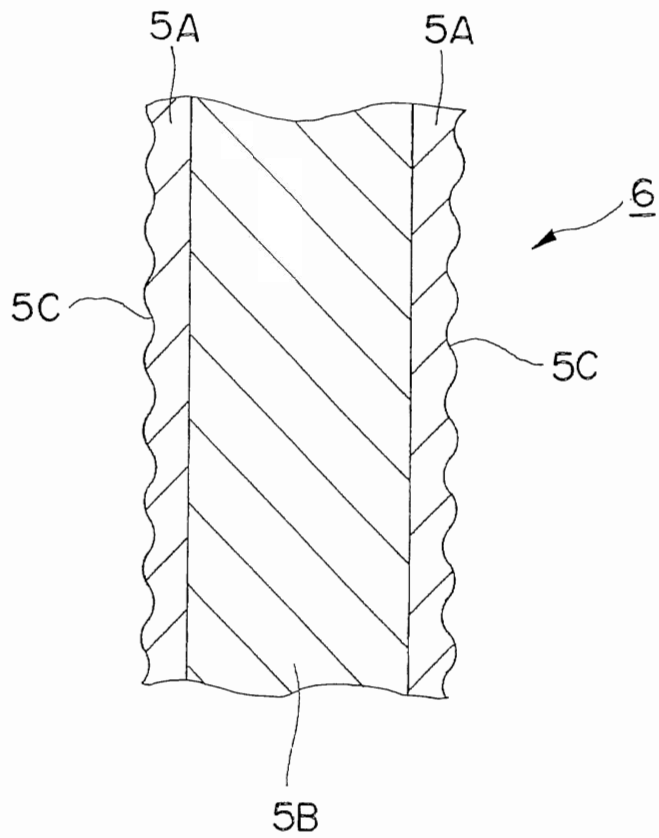


FIG. 6

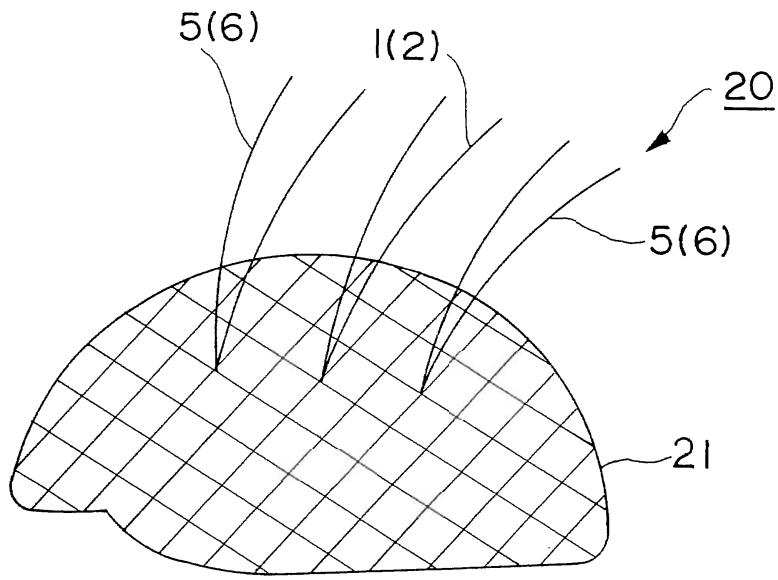


FIG. 7

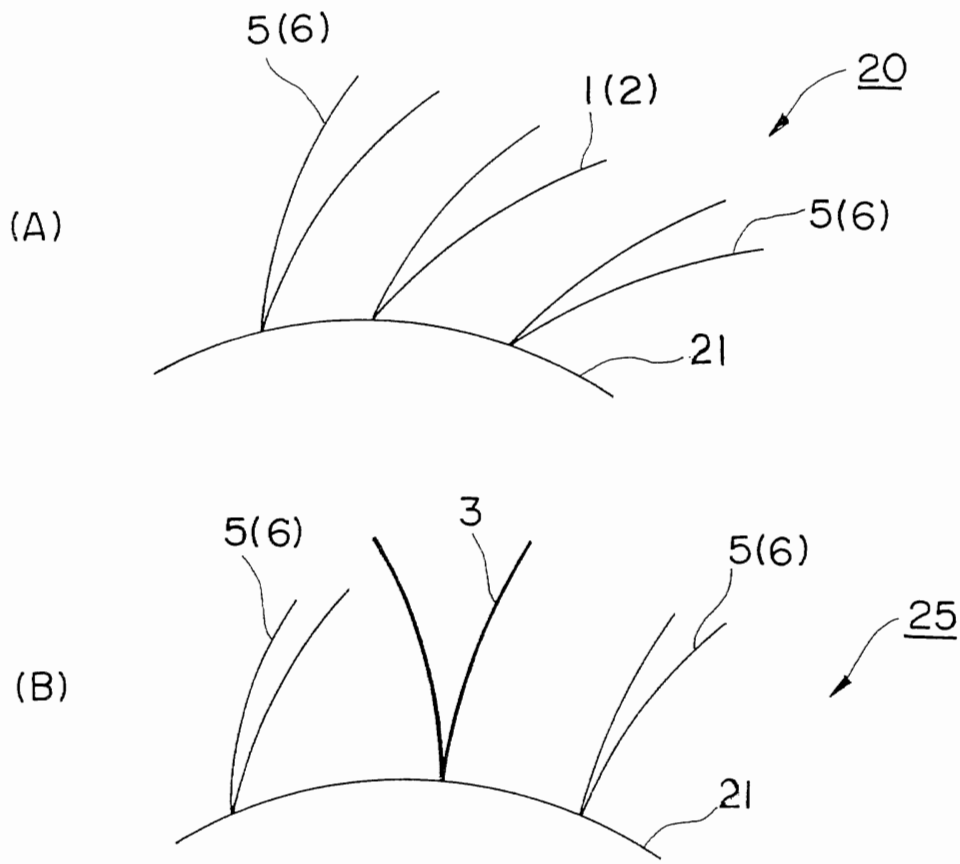


FIG. 8

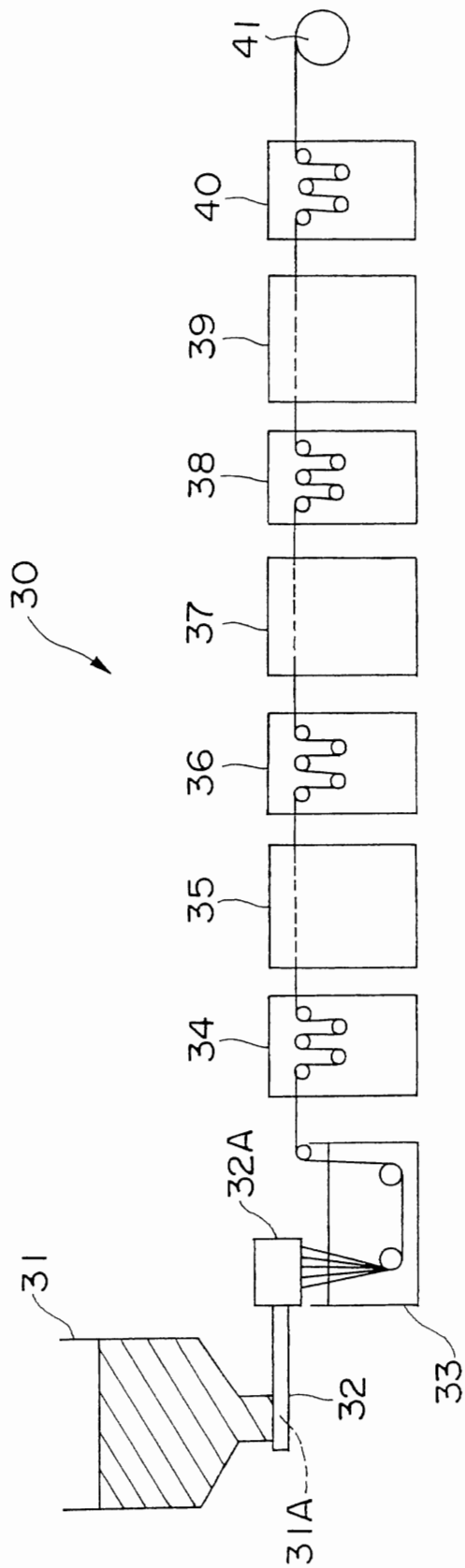


FIG. 9

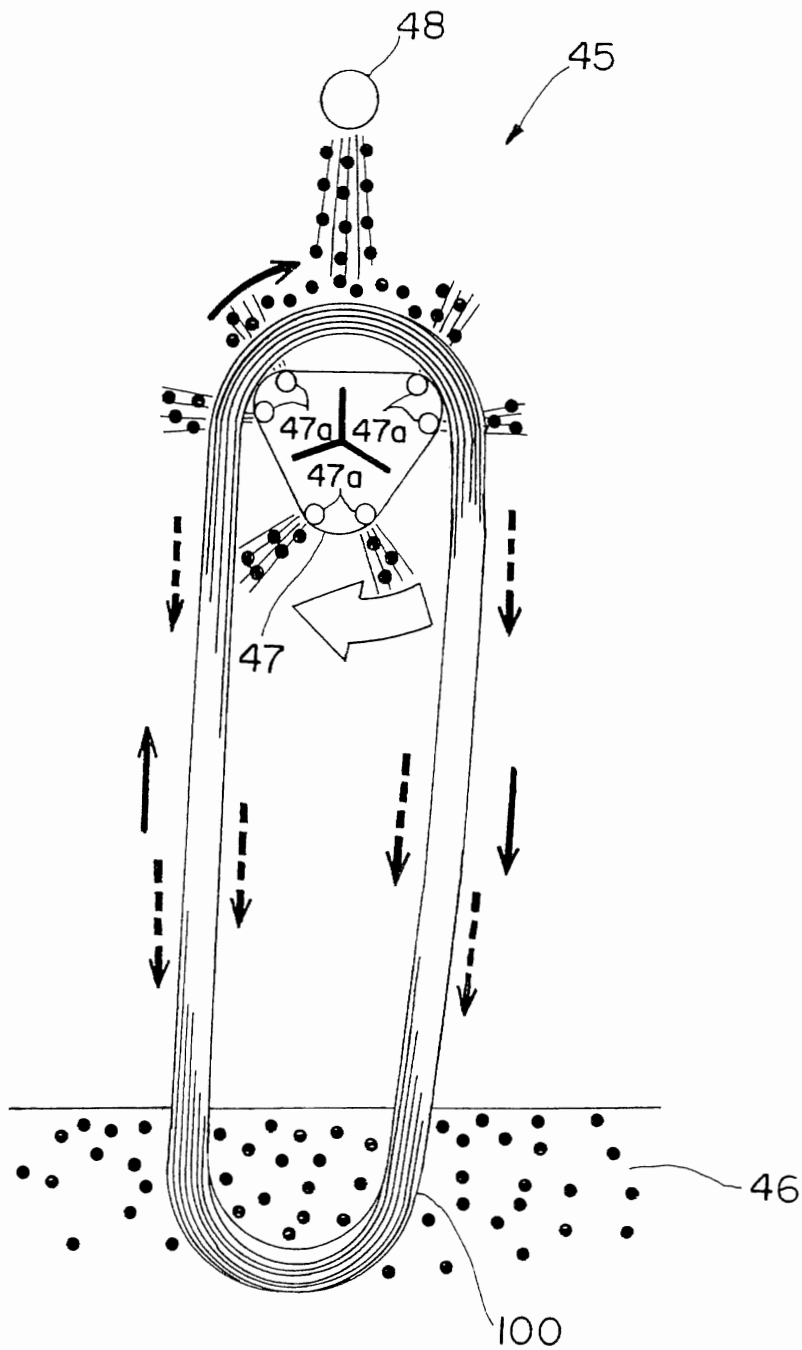


FIG. 10

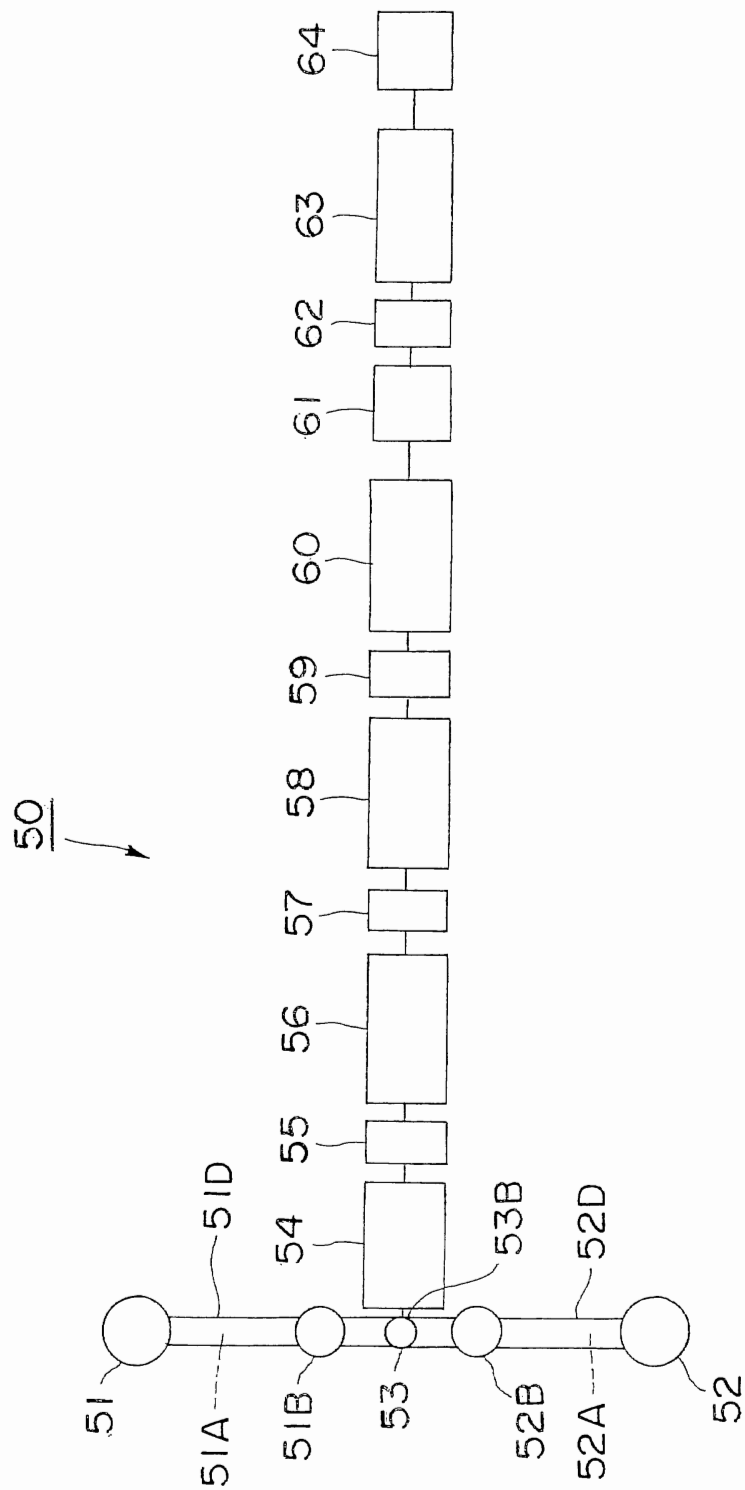

50
64
63
62
61
60
59
58
57
56
55
54
53B
52D
51D
51
51A
51B
53
52B
52A
52

FIG. 11

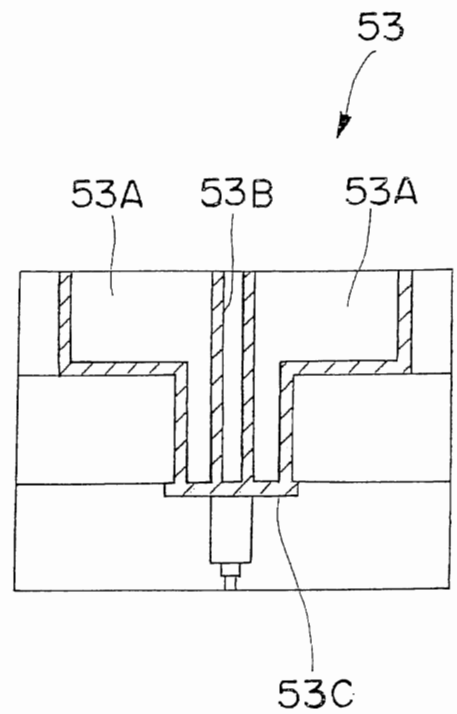


FIG. 12

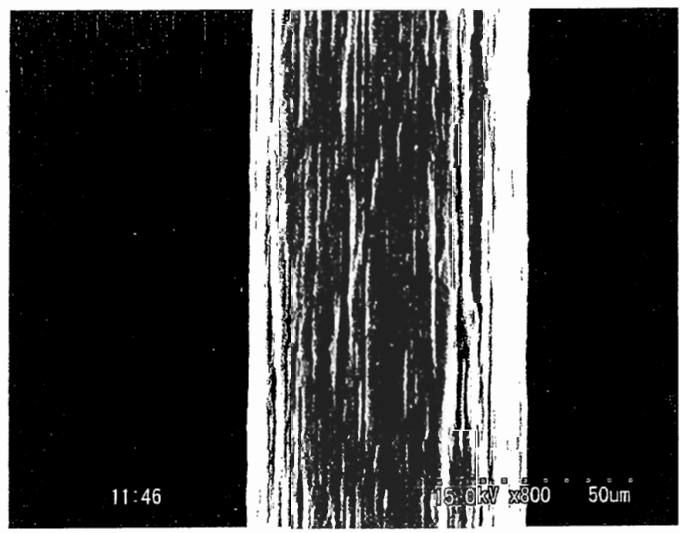


FIG. 13

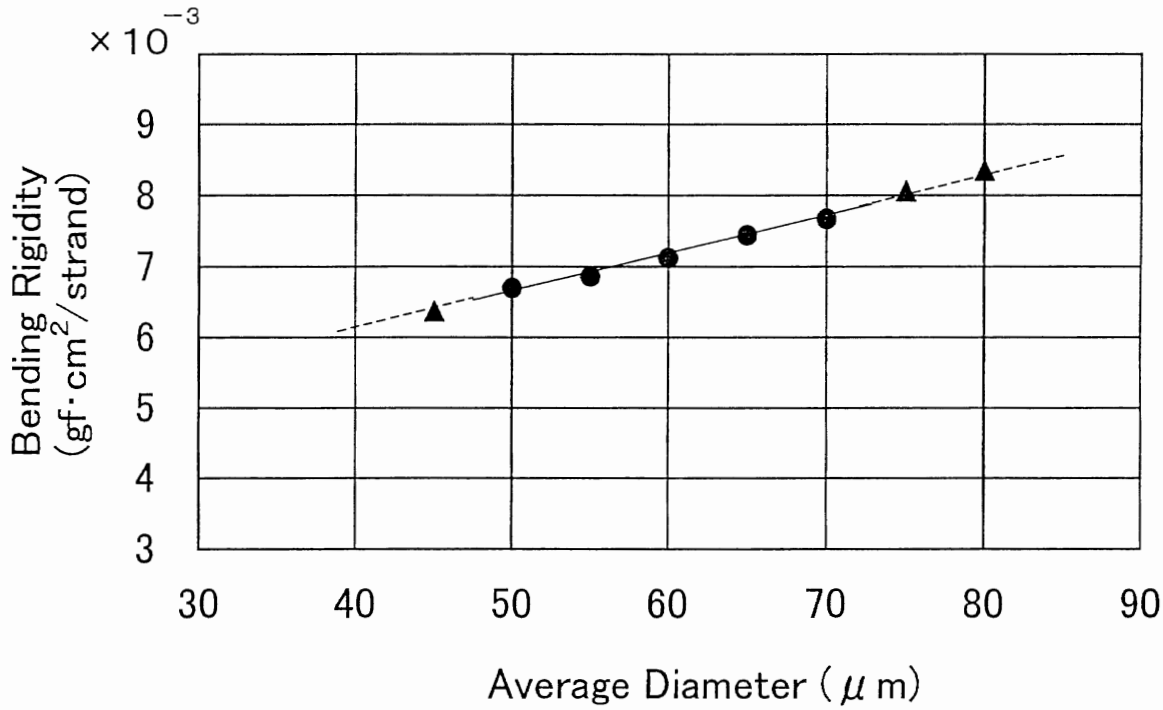

×10⁻³
9
8
7
6
5
4
3
Bending Rigidity
(gf·cm²/strand)
30
40
50
60
70
80
90
Average Diameter (μm)

FIG.14

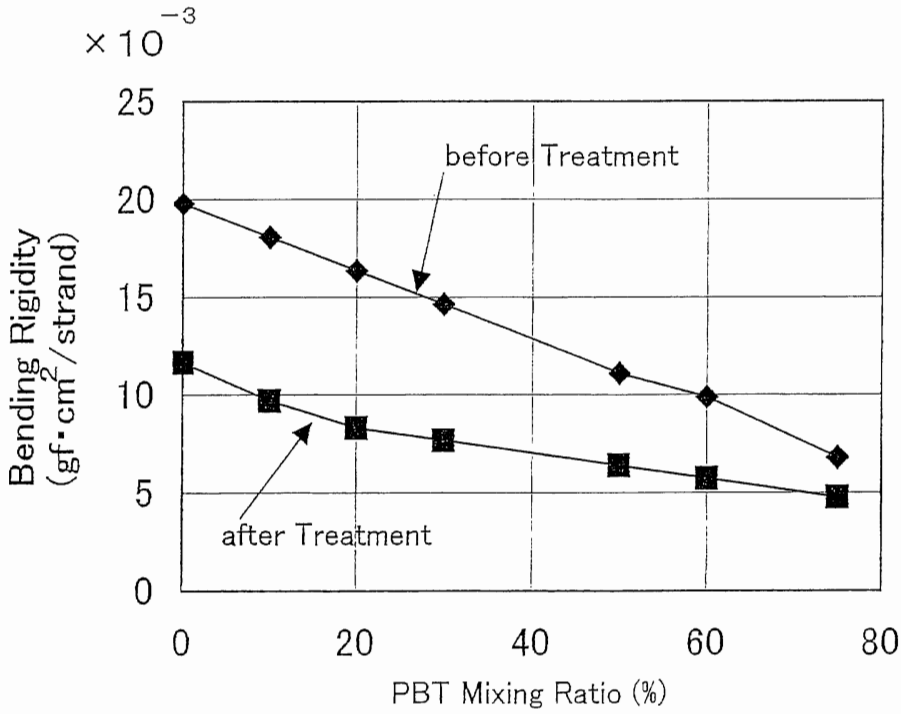

×10⁻³
25
20
15
10
5
0
Bending Rigidity
(gf·cm²/strand)
before Treatment
after Treatment
0
20
40
60
80
PBT Mixing Ratio (%)

FIG. 15

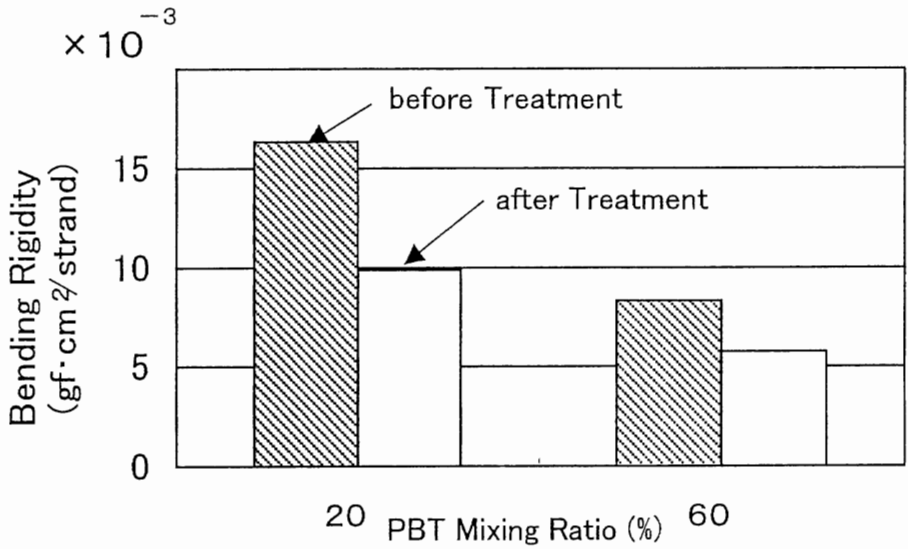
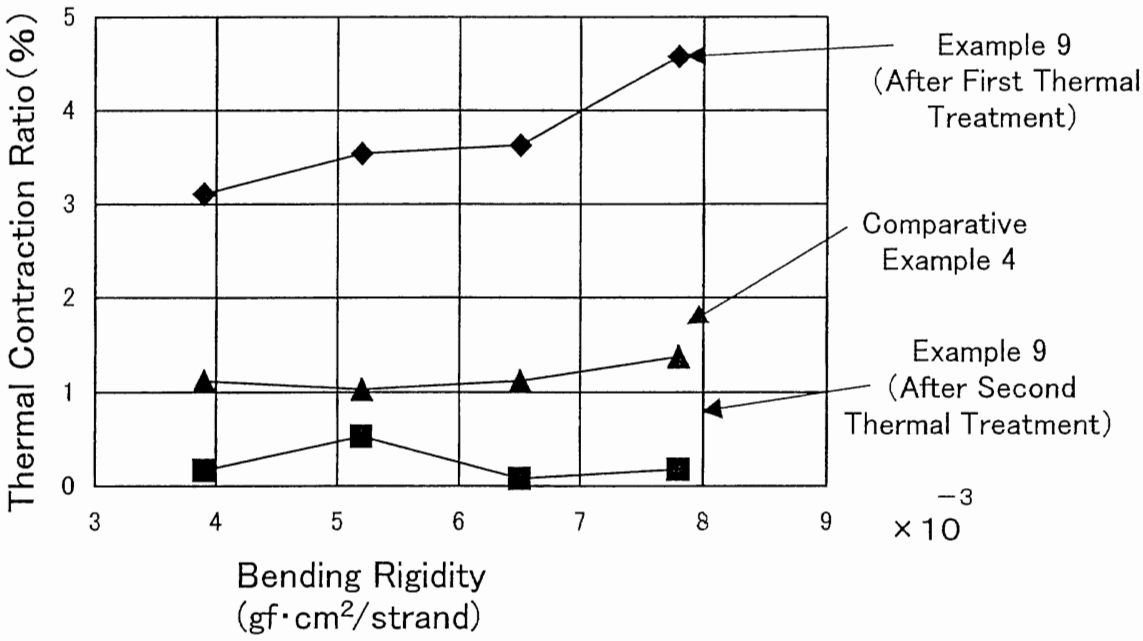

×10⁻³
Bending Rigidity
(gf·cm²/strand)
15
10
5
0
before Treatment
after Treatment
20
PBT Mixing Ratio (%)
60

FIG. 16


Thermal Contraction Ratio (%)
5
4
3
2
1
0
3
4
5
6
7
8
9
×10
−3
Bending Rigidity
(gf·cm²/strand)
Example 9
(After First Thermal
Treatment)
Comparative
Example 4
Example 9
(After Second
Thermal Treatment)