FIG.1

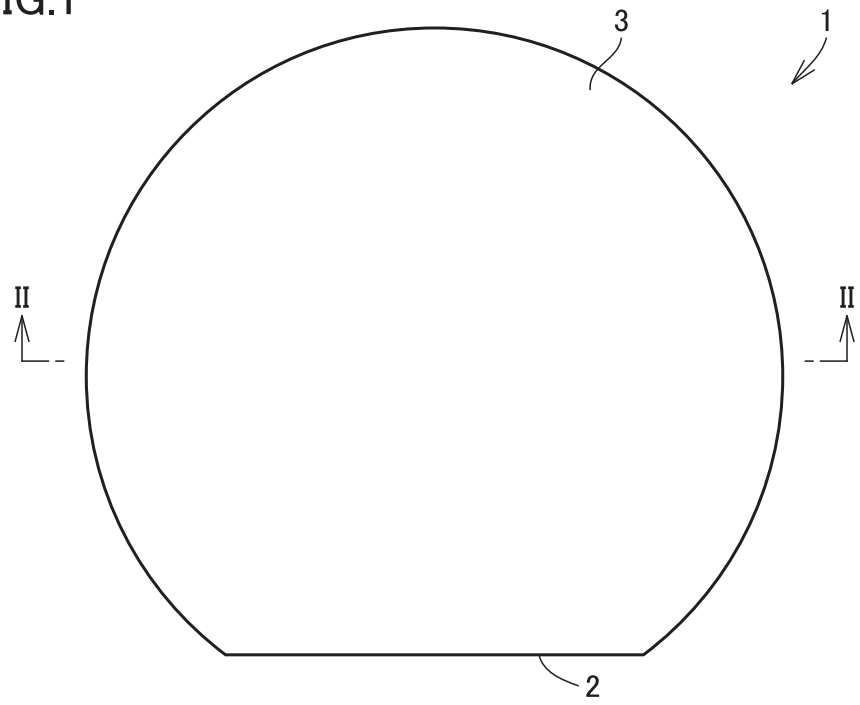

FIG.2

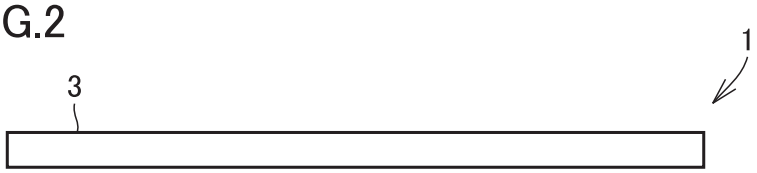

FIG.3

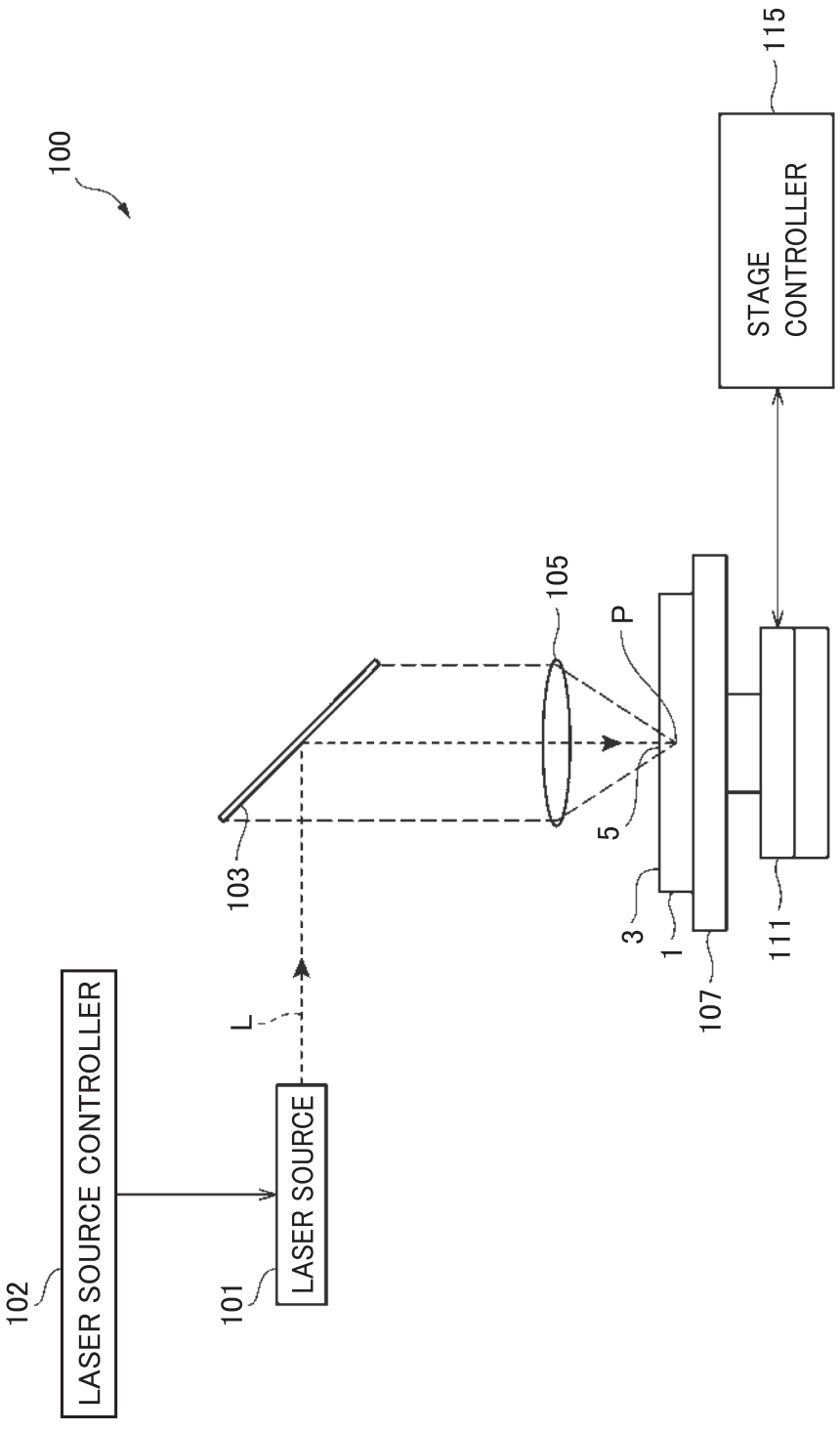
100
115
STAGE CONTROLLER
105
P
5
103
3
1
107
111
L
LASER SOURCE
101
LASER SOURCE CONTROLLER
102

FIG.4

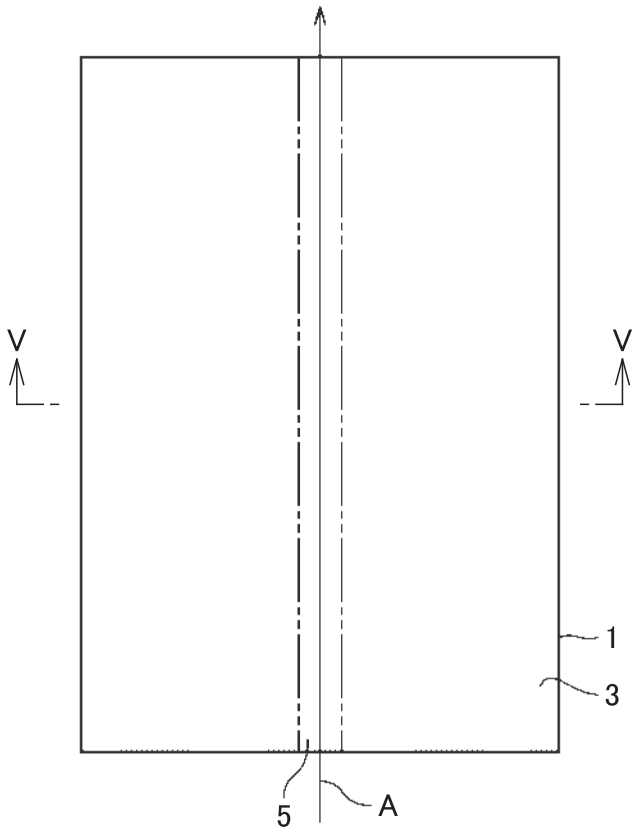

FIG.5

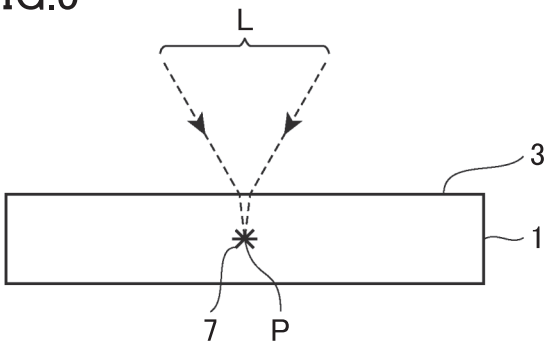

FIG.6

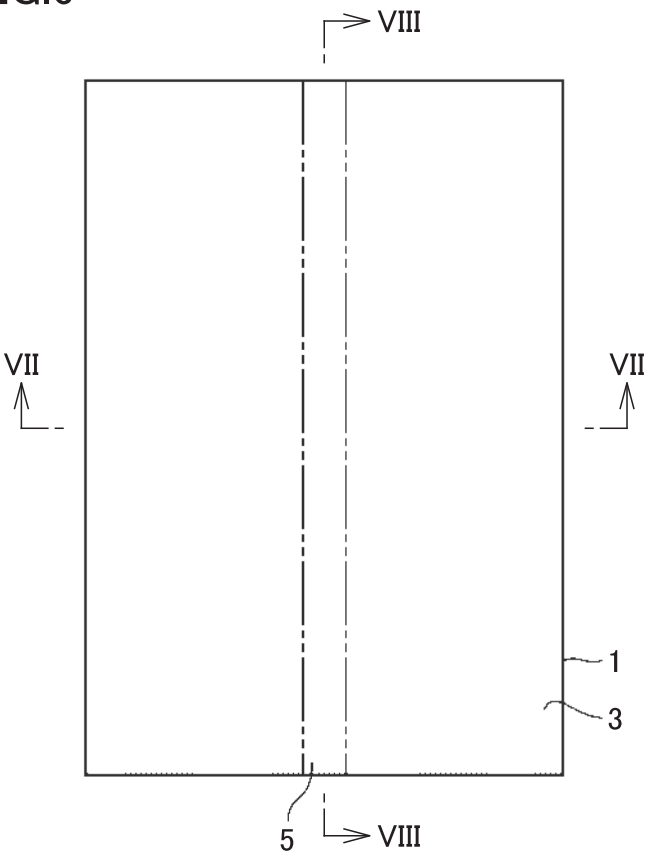

FIG.7

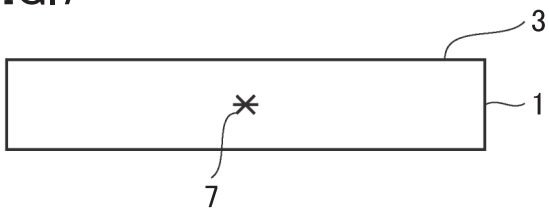

FIG.8

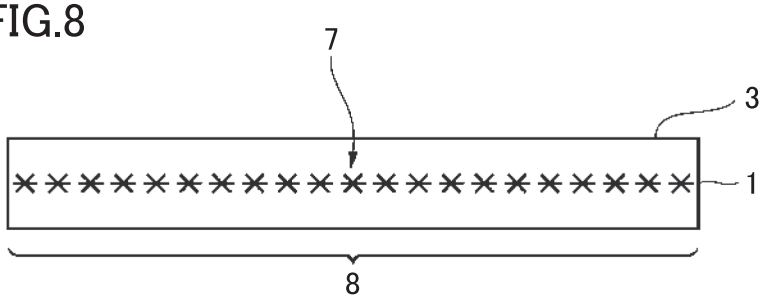

FIG.9

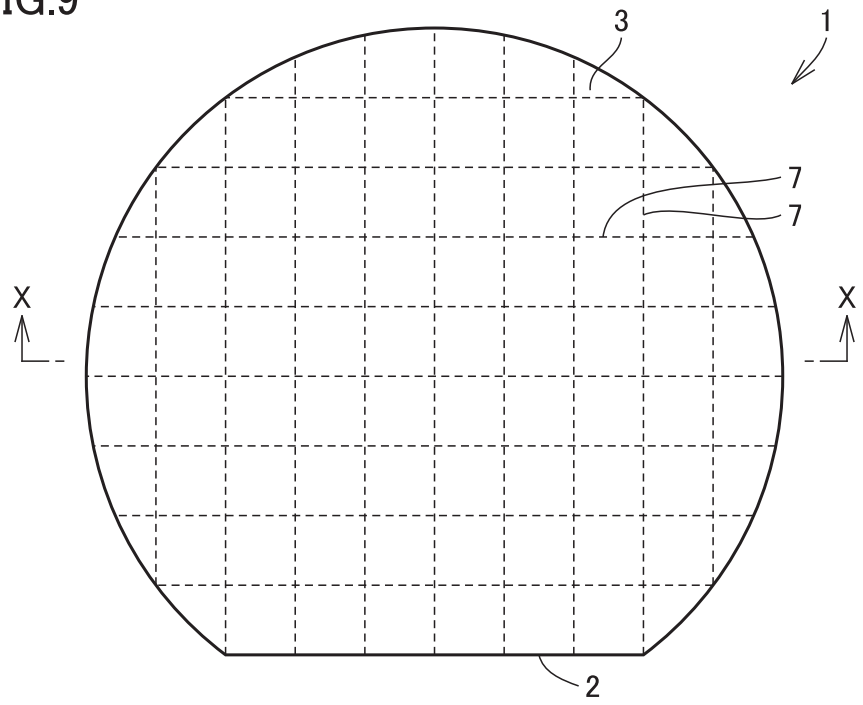

FIG.10

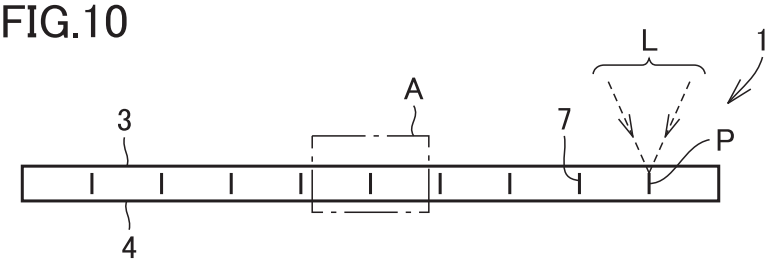
L
1
A
3
7
P
4

FIG.11

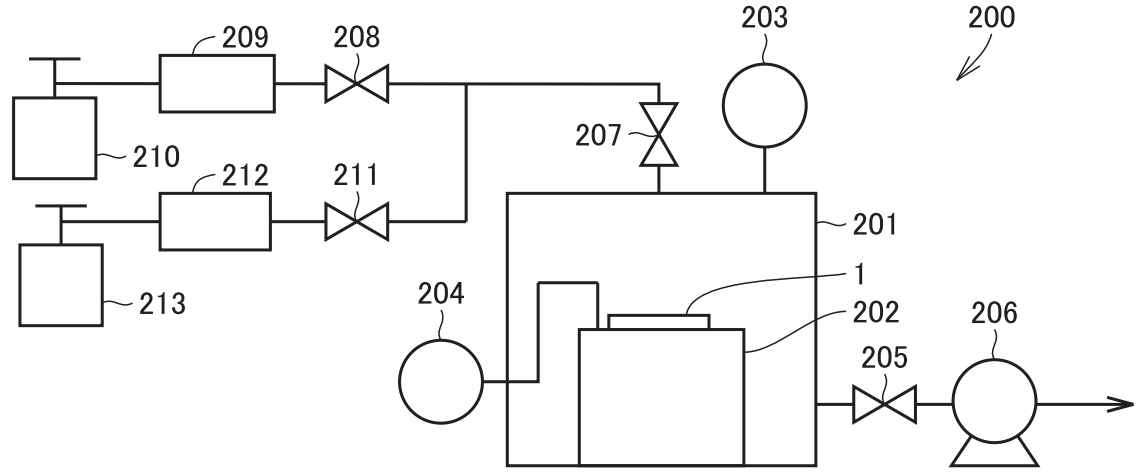
209
208
203
200
210
207
212
211
201
213
1
204
202
206
205

FIG.12

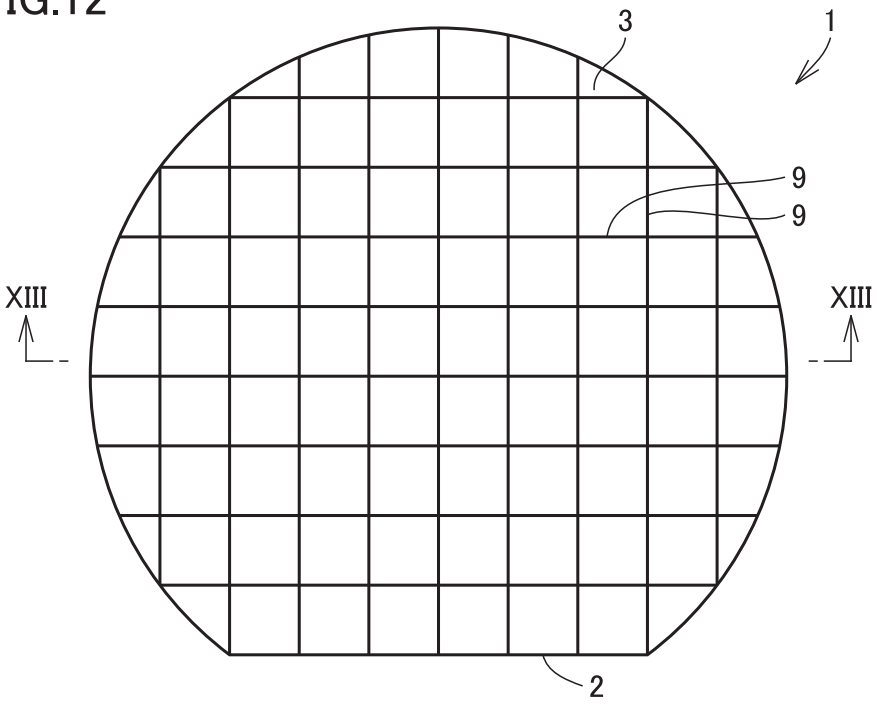

FIG.13

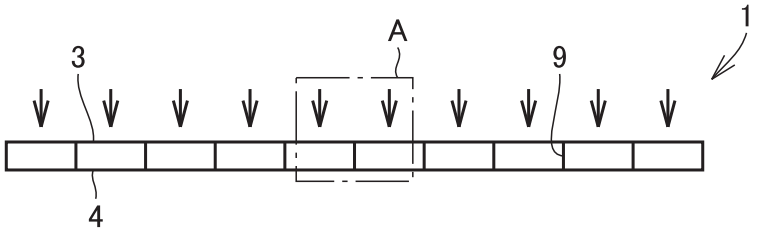

FIG.14

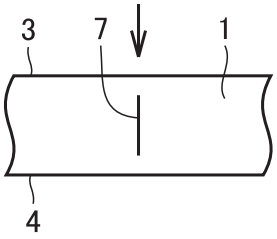

FIG.15

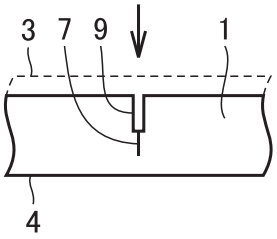

FIG.16

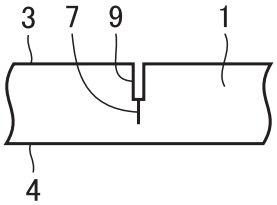

FIG.17

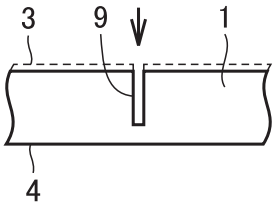

FIG.18

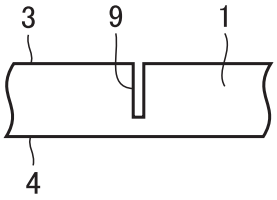

FIG.19

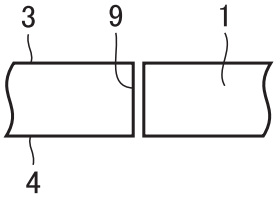

FIG.20

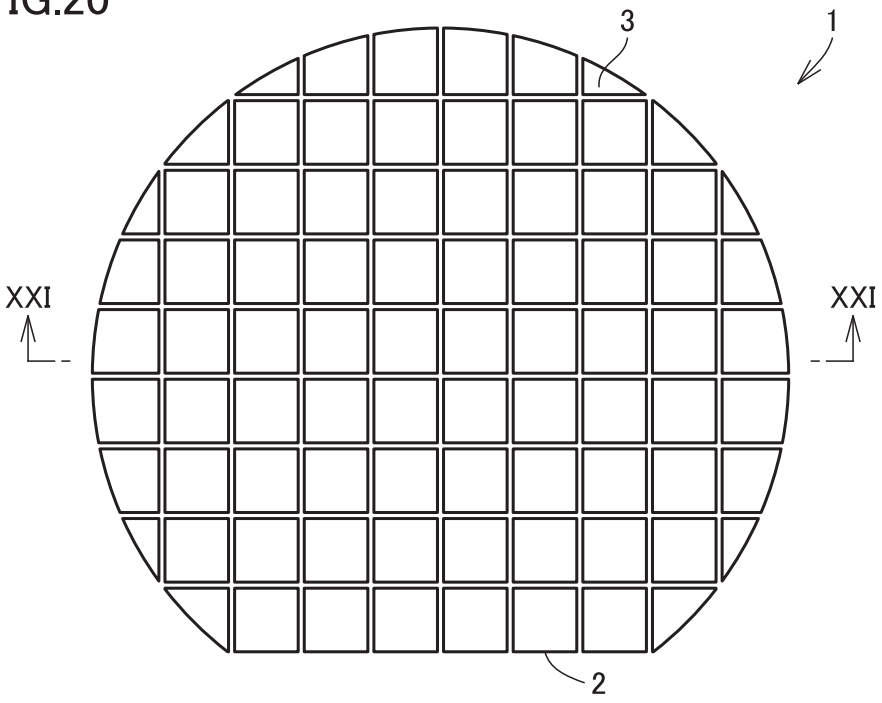

FIG.21

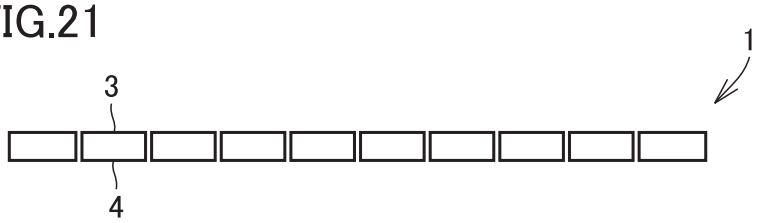

FIG.22

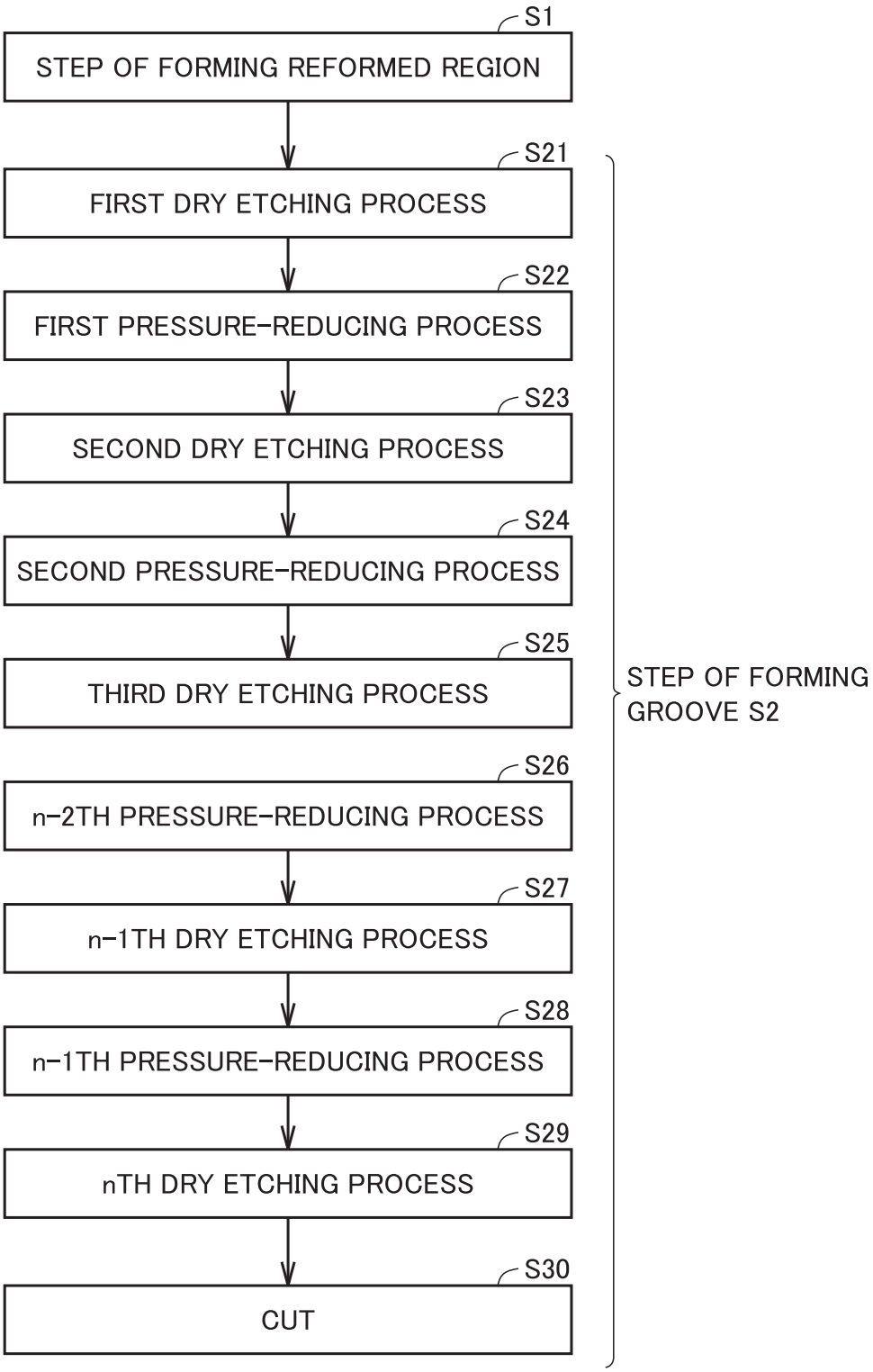
S1
STEP OF FORMING REFORMED REGION
S21
FIRST DRY ETCHING PROCESS
S22
FIRST PRESSURE-REDUCING PROCESS
S23
SECOND DRY ETCHING PROCESS
S24
SECOND PRESSURE-REDUCING PROCESS
S25
THIRD DRY ETCHING PROCESS
S26
n-2TH PRESSURE-REDUCING PROCESS
S27
n-1TH DRY ETCHING PROCESS
S28
n-1TH PRESSURE-REDUCING PROCESS
S29
nTH DRY ETCHING PROCESS
S30
CUT
STEP OF FORMING GROOVE S2

FIG.23

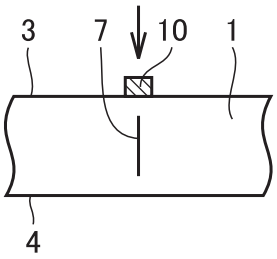
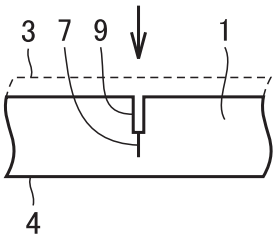
FIG.24