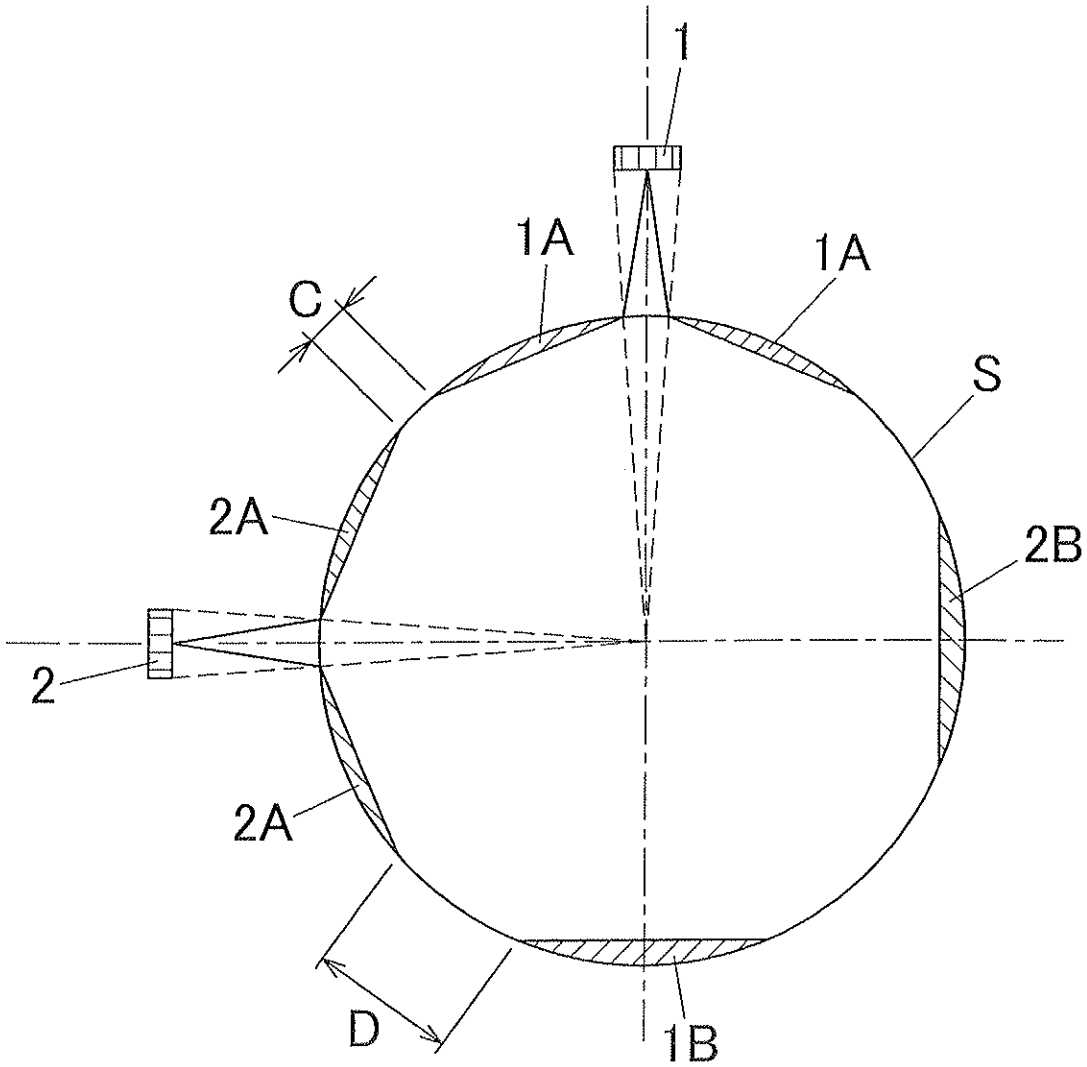


FIG.1

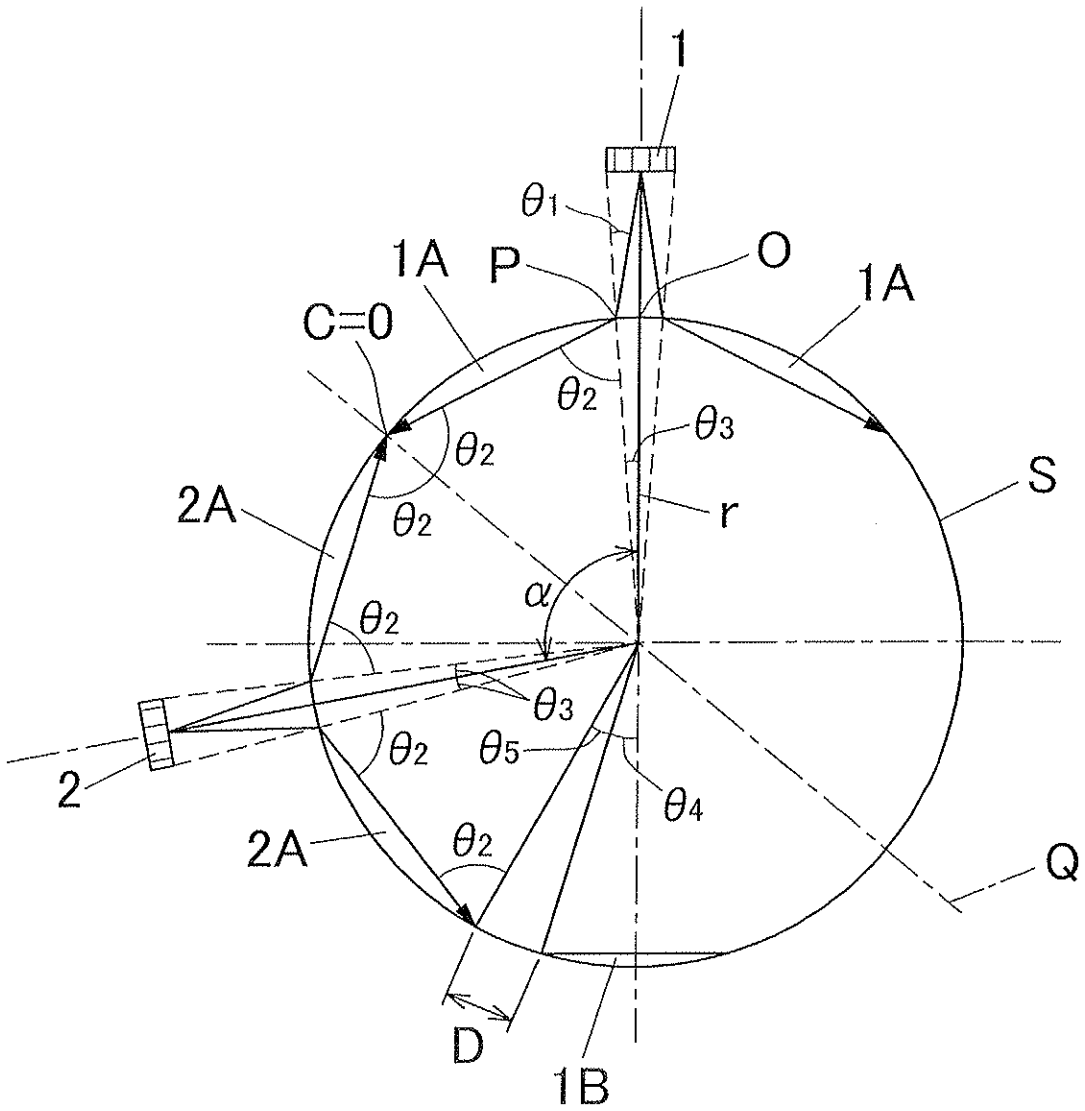


FIG.2

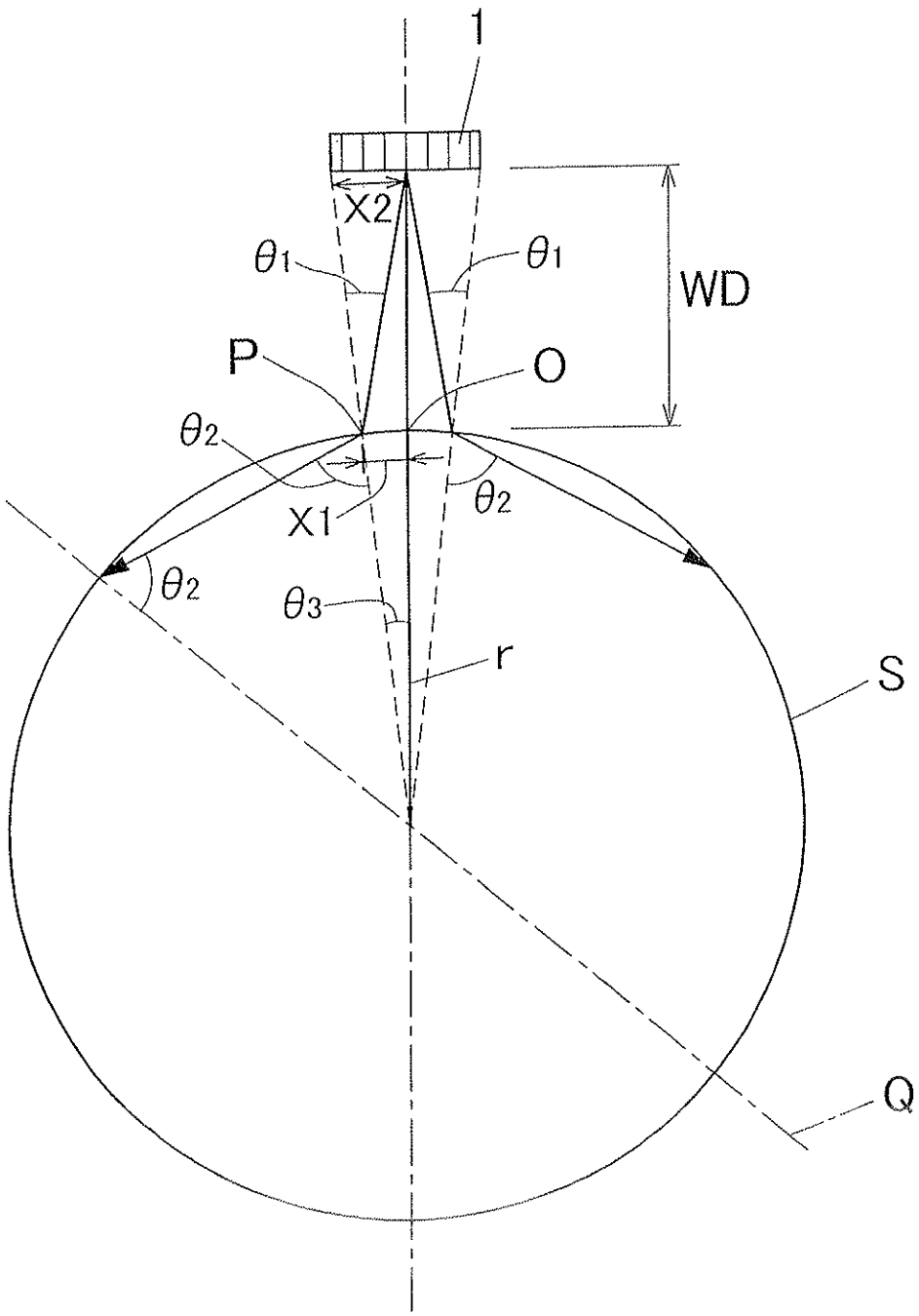


FIG.3

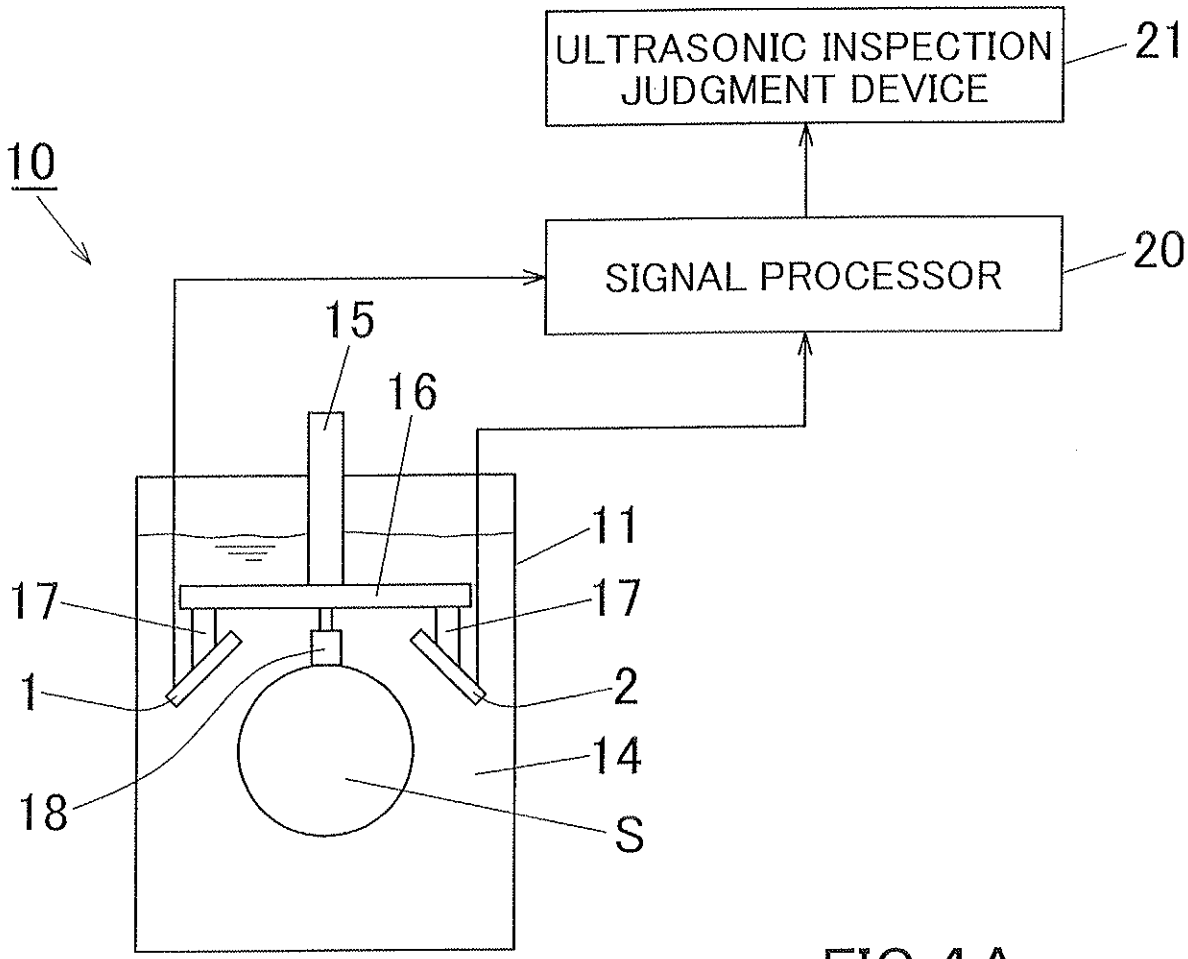

ULTRASONIC INSPECTION JUDGMENT DEVICE
21
10
SIGNAL PROCESSOR
20
15
16
11
17
17
1
2
14
18
S

FIG.4A

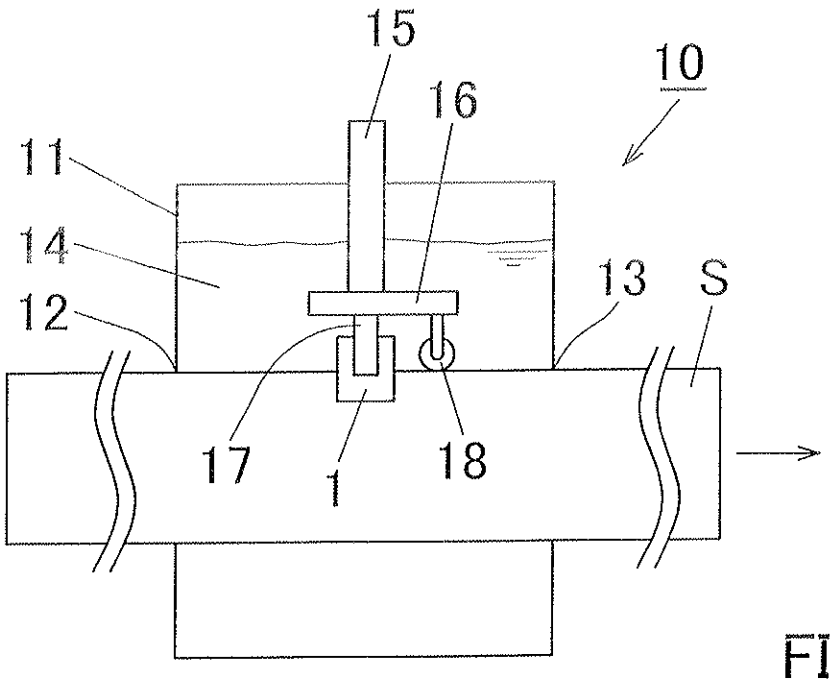

15
10
16
11
14
13
S
12
17
1
18

FIG.4B

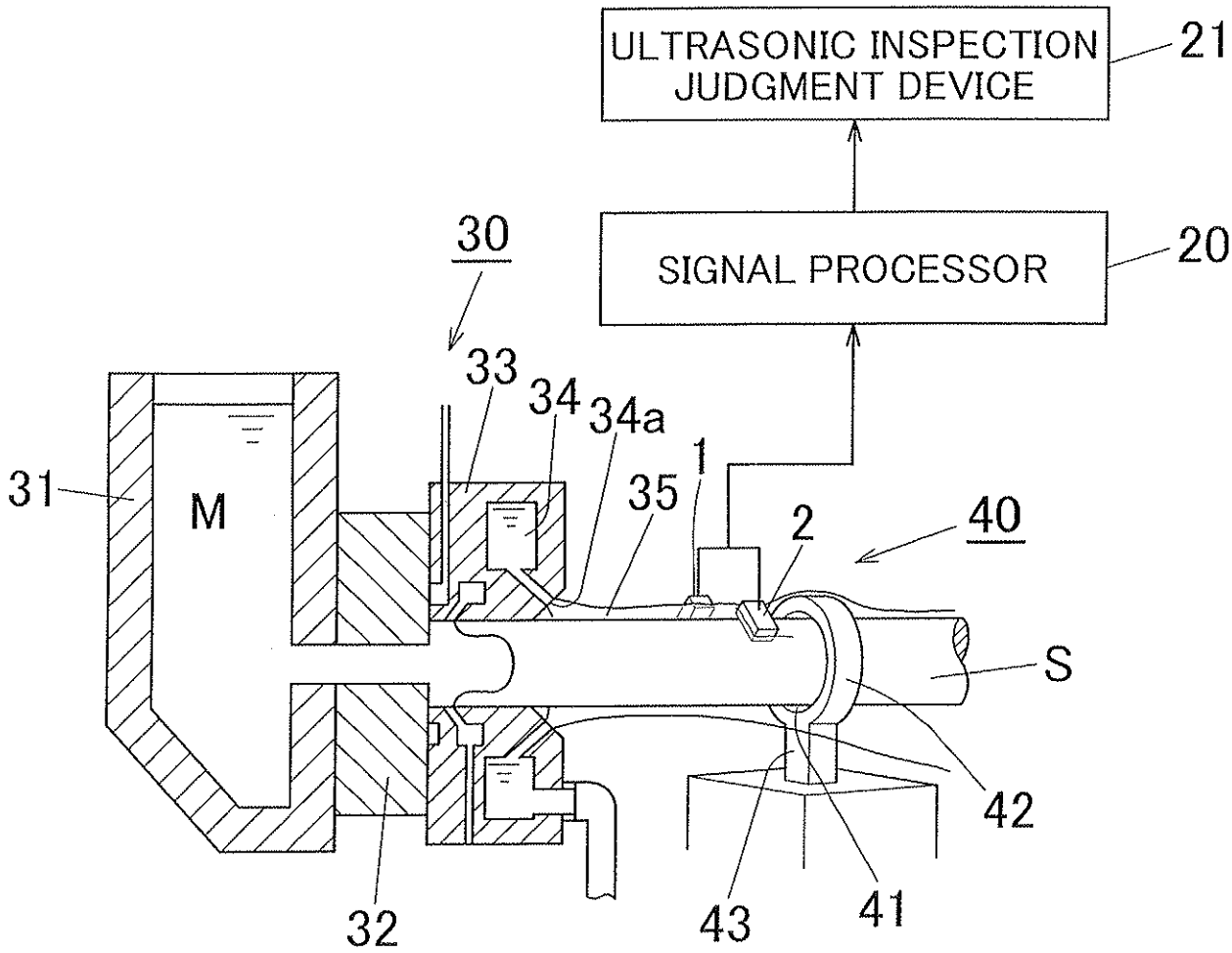

ULTRASONIC INSPECTION JUDGMENT DEVICE
21
SIGNAL PROCESSOR
20
30
33
34
34a
1
35
2
40
31
M
S
42
32
43
41

FIG.5

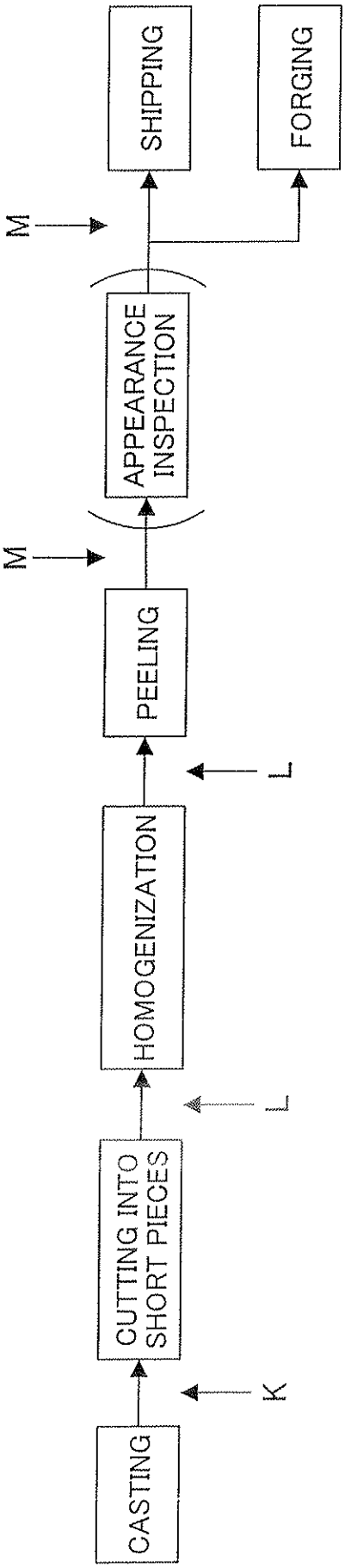

CASTING
CUTTING INTO SHORT PIECES
HOMOGENIZATION
PEELING
APPEARANCE INSPECTION
SHIPPING
FORGING
K
L
L
M
M

FIG.6A

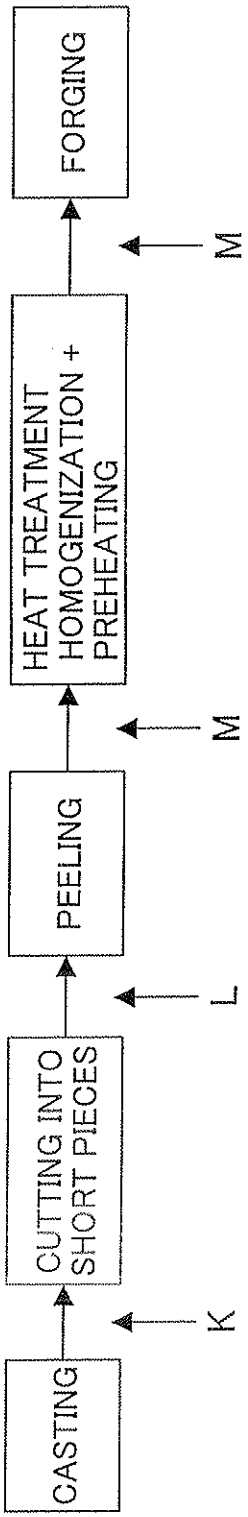

CASTING
CUTTING INTO SHORT PIECES
PEELING
HEAT TREATMENT HOMOGENIZATION + PREHEATING
FORGING
K
L
M
M

FIG.6B

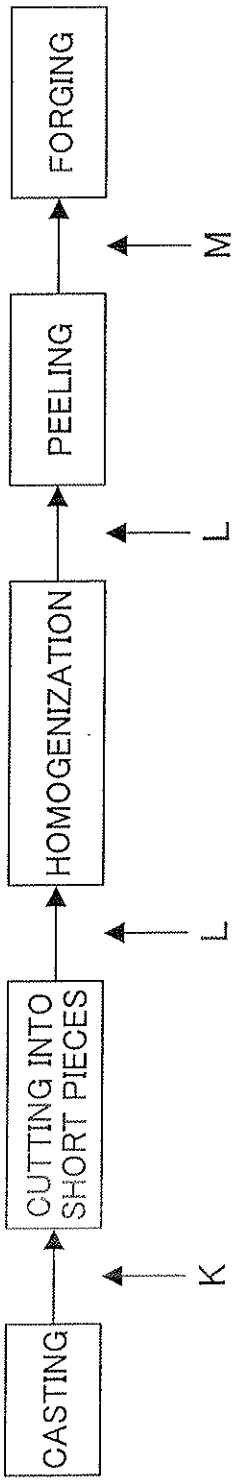

CASTING
K
CUTTING INTO SHORT PIECES
L
HOMOGENIZATION
L
PEELING
M
FORGING

FIG.6C