FIG.1

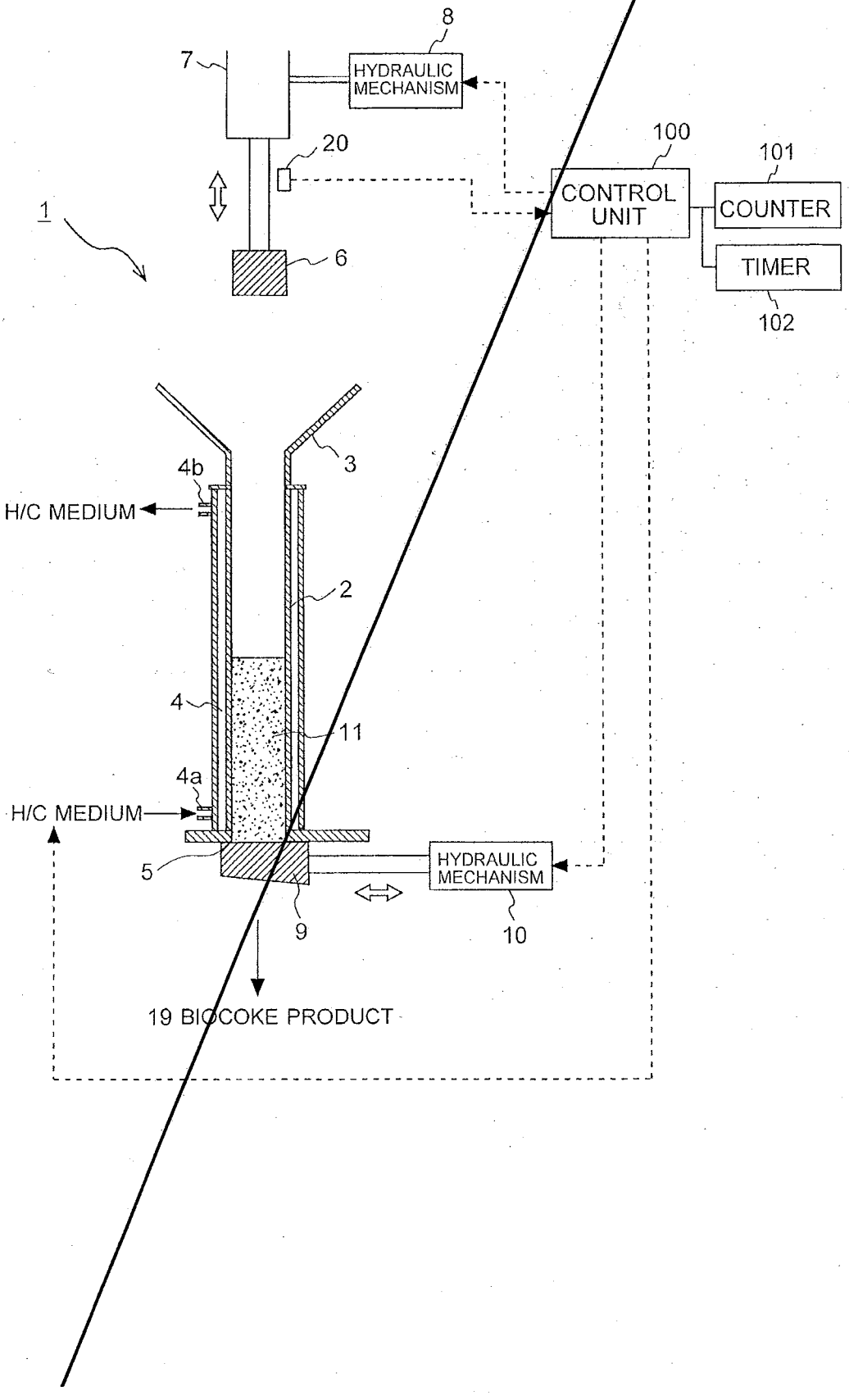

8
7
HYDRAULIC MECHANISM
20
100
101
CONTROL UNIT
COUNTER
TIMER
1
6
102
3
4b
H/C MEDIUM
2
4
11
4a
H/C MEDIUM
5
HYDRAULIC MECHANISM
9
10
19 BIOCOKE PRODUCT

FIG.2

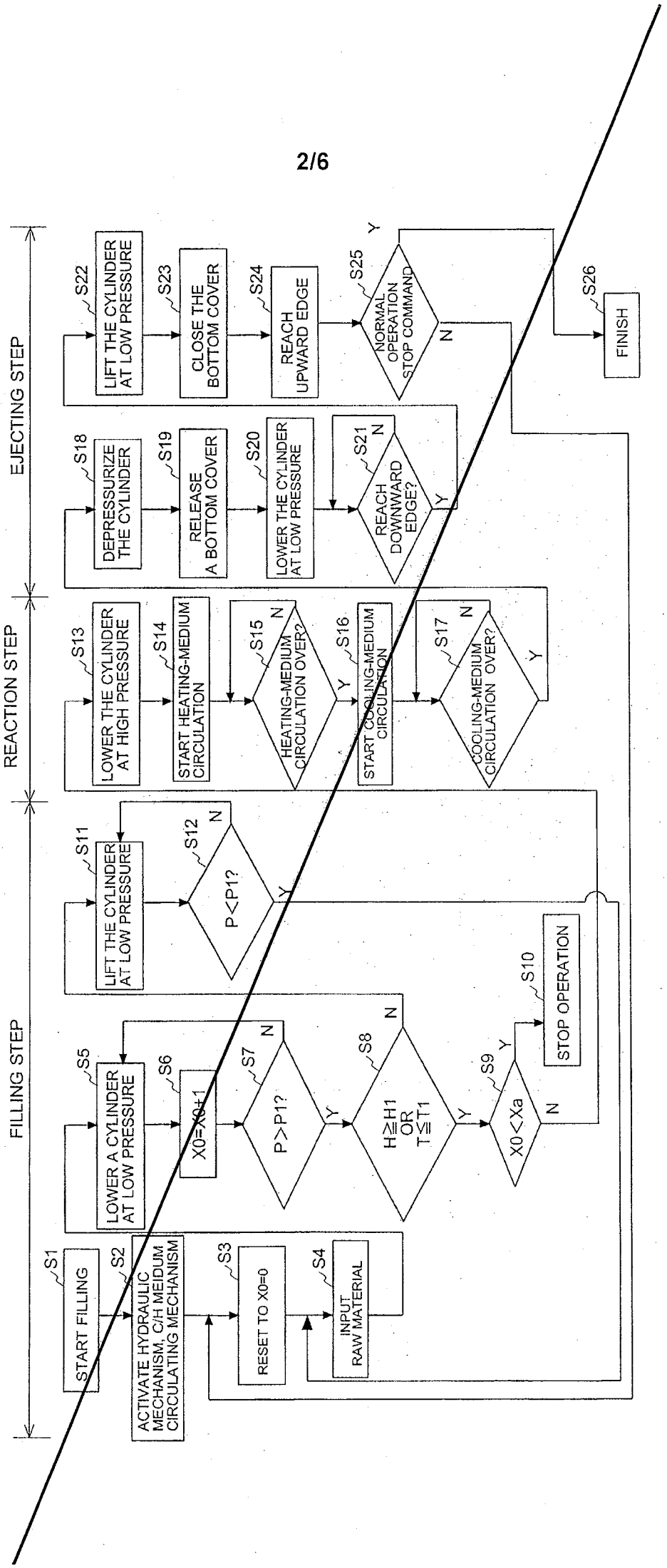

FILLING STEP
REACTION STEP
EJECTING STEP
S1
START FILLING
S2
ACTIVATE HYDRAULIC MECHANISM, C/H MEIDUM CIRCULATING MECHANISM
S3
RESET TO X0=0
S4
INPUT RAW MATERIAL
S5
LOWER A CYLINDER AT LOW PRESSURE
S6
X0=X0+1
S7
P>P1?
N
Y
S8
H≧H1 OR T≦T1
N
Y
S9
X0<Xa
Y
N
S10
STOP OPERATION
S11
LIFT THE CYLINDER AT LOW PRESSURE
S12
P<P1?
N
Y
S13
LOWER THE CYLINDER AT HIGH PRESSURE
S14
START HEATING-MEDIUM CIRCULATION
S15
HEATING-MEDIUM CIRCULATION OVER?
N
Y
S16
START COOLING-MEDIUM CIRCULATION
S17
COOLING-MEDIUM CIRCULATION OVER?
N
Y
S18
DEPRESSURIZE THE CYLINDER
S19
RELEASE A BOTTOM COVER
S20
LOWER THE CYLINDER AT LOW PRESSURE
S21
REACH DOWNWARD EDGE?
N
Y
S22
LIFT THE CYLINDER AT LOW PRESSURE
S23
CLOSE THE BOTTOM COVER
S24
REACH UPWARD EDGE
S25
NORMAL OPERATION STOP COMMAND
Y
N
S26
FINISH

FIG.3

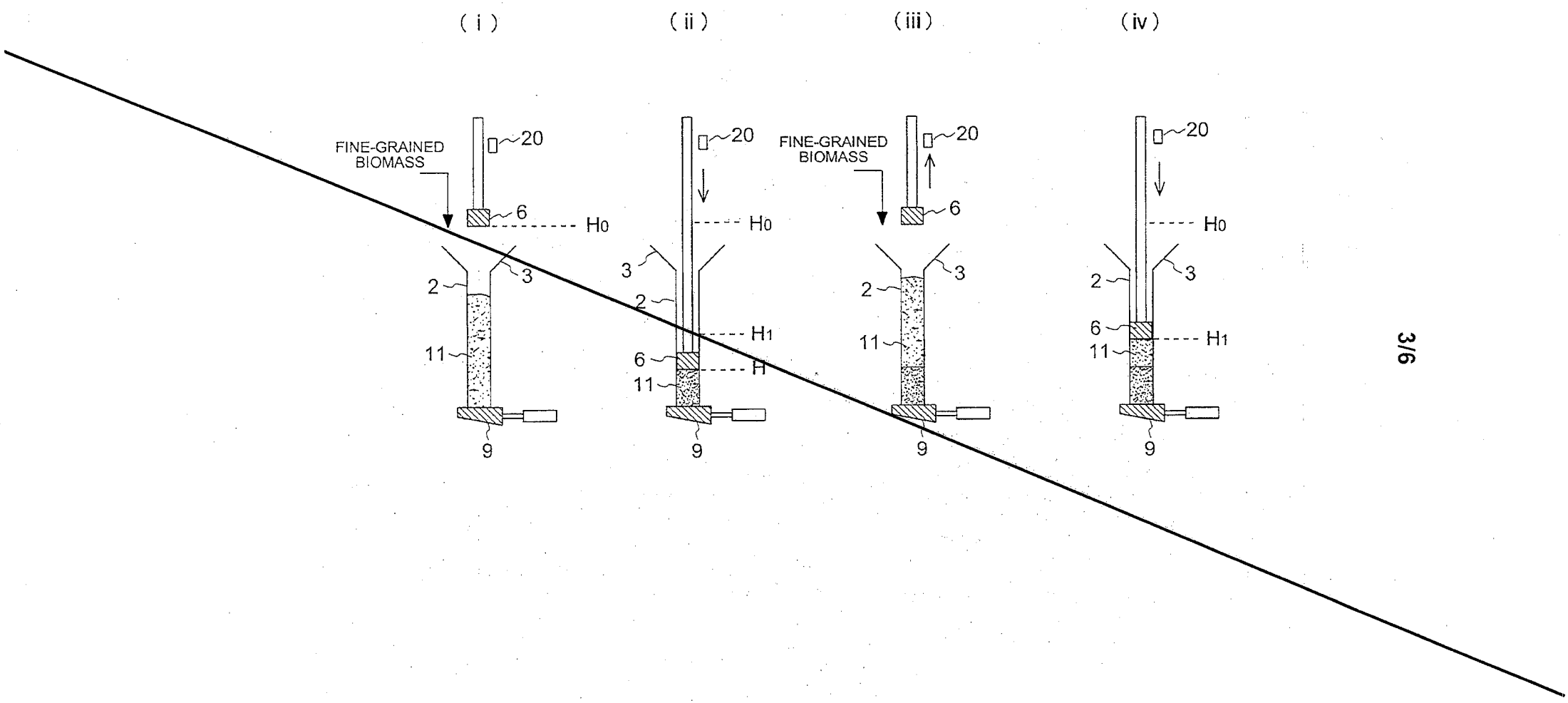

(i)
(ii)
(iii)
(iv)
FINE-GRAINED BIOMASS
FINE-GRAINED BIOMASS
20
6
H0
H1
H
2
3
11
9

FIG.4

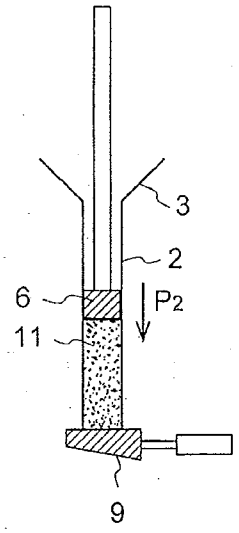


FIG.5

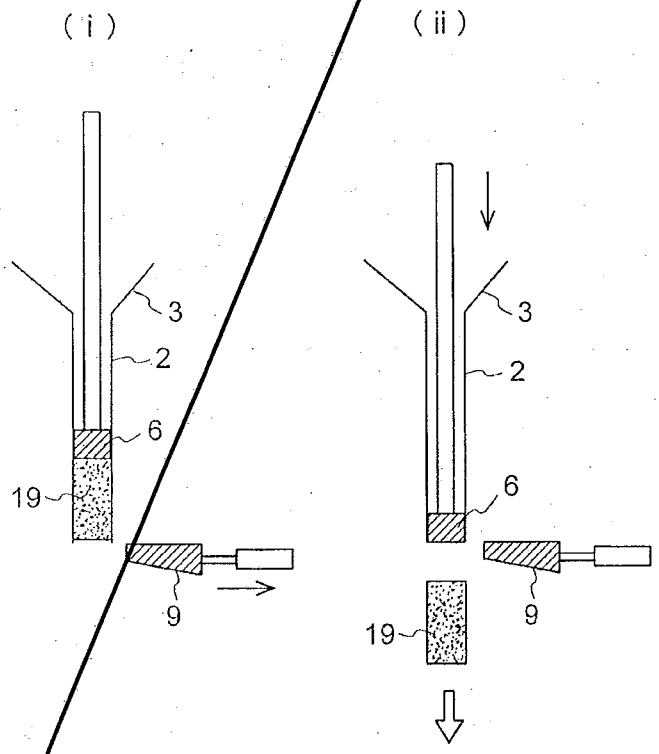


FIG.6

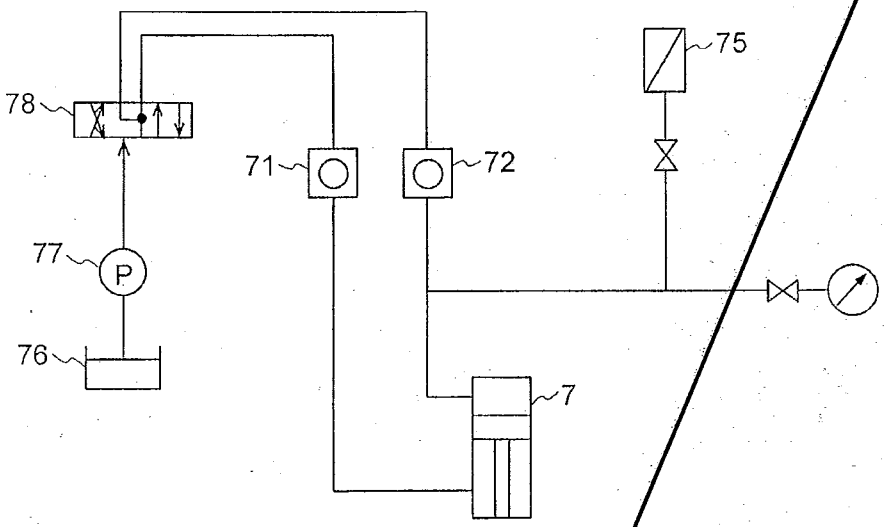


FIG.7

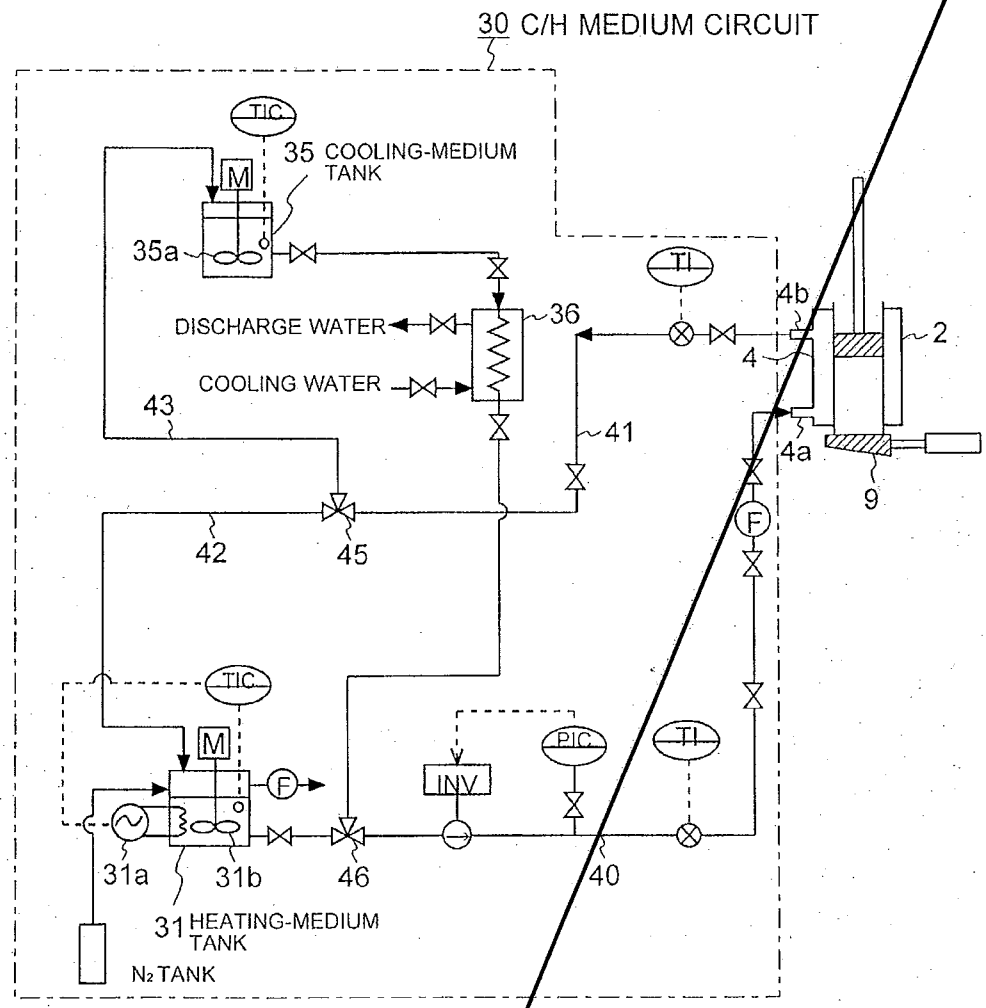


FIG.8

	WOOD BIOMASS (RAW)	COAL COKE	BIOCOKE
MAXIMUM COMPRESSIVE STRENGTH(MPa)	30	15～20	20～200
HEAT VALUE (MJ/kg)	17	29	18～23
APPARENT SPECIFIC GRAVITY	0.4～0.6	1.85	1.2～1.52

FIG.1

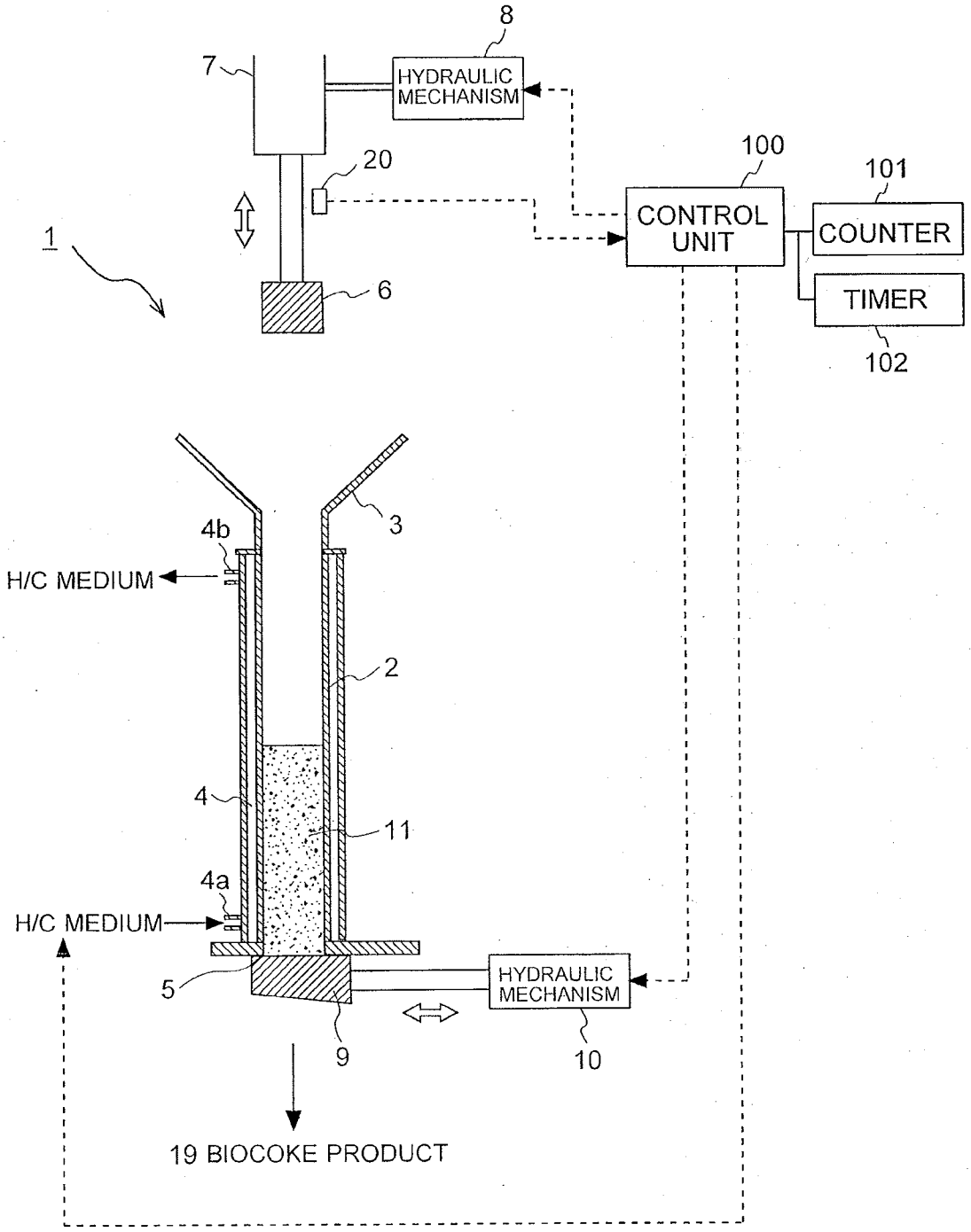

8
7
HYDRAULIC MECHANISM
20
100
101
CONTROL UNIT
COUNTER
1
6
TIMER
102
3
4b
H/C MEDIUM
2
4
11
4a
H/C MEDIUM
5
HYDRAULIC MECHANISM
9
10
19 BIOCOKE PRODUCT

FIG.2

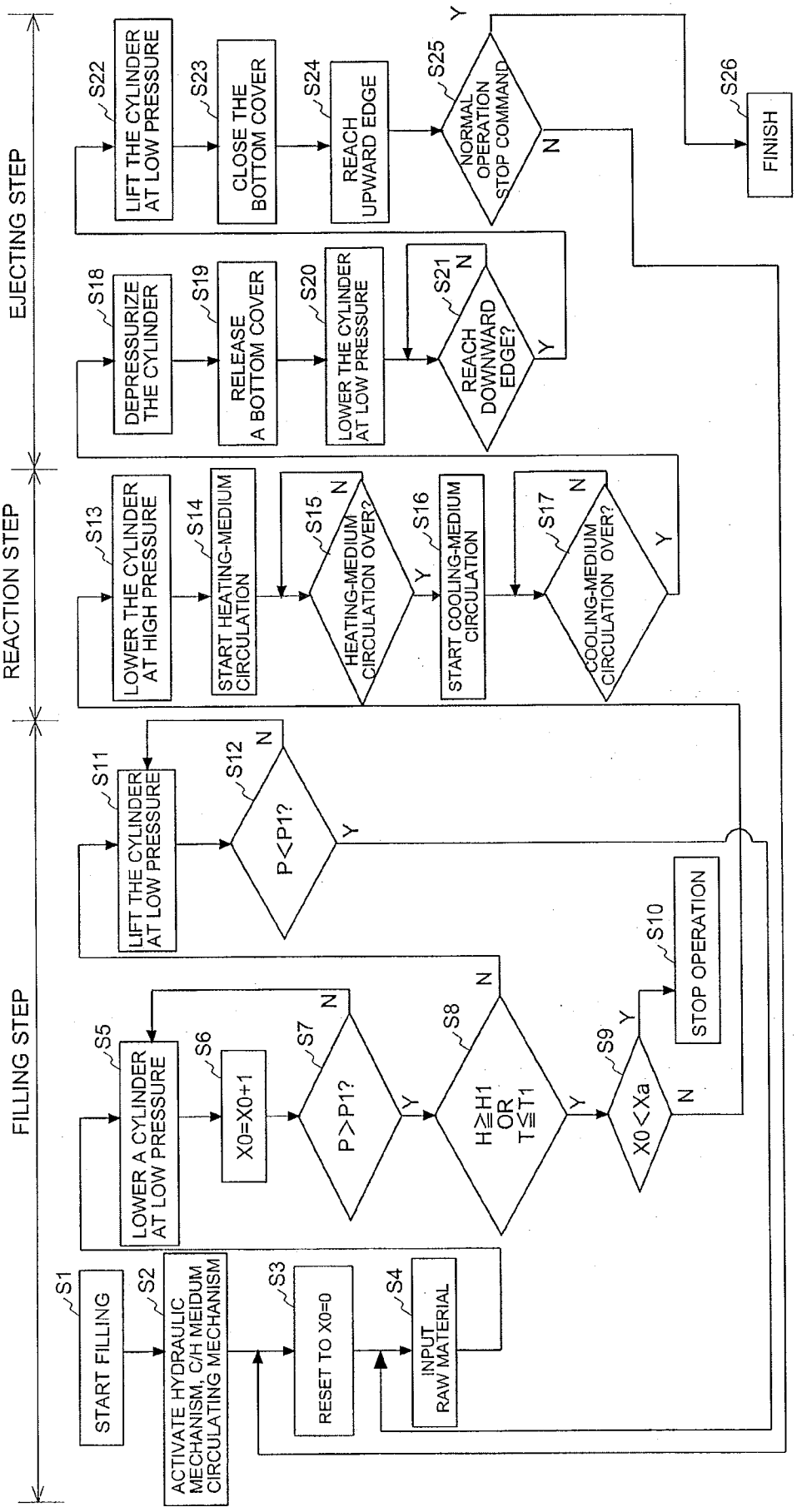

FILLING STEP
REACTION STEP
EJECTING STEP
START FILLING
S1
ACTIVATE HYDRAULIC MECHANISM, C/H MEIDUM CIRCULATING MECHANISM
S2
RESET TO X0=0
S3
INPUT RAW MATERIAL
S4
LOWER A CYLINDER AT LOW PRESSURE
S5
X0=X0+1
S6
P>P1?
S7
H≧H1 OR T≦T1
S8
X0<Xa
S9
STOP OPERATION
S10
LIFT THE CYLINDER AT LOW PRESSURE
S11
P<P1?
S12
LOWER THE CYLINDER AT HIGH PRESSURE
S13
START HEATING-MEDIUM CIRCULATION
S14
HEATING-MEDIUM CIRCULATION OVER?
S15
START COOLING-MEDIUM CIRCULATION
S16
COOLING-MEDIUM CIRCULATION OVER?
S17
DEPRESSURIZE THE CYLINDER
S18
RELEASE A BOTTOM COVER
S19
LOWER THE CYLINDER AT LOW PRESSURE
S20
REACH DOWNWARD EDGE?
S21
LIFT THE CYLINDER AT LOW PRESSURE
S22
CLOSE THE BOTTOM COVER
S23
REACH UPWARD EDGE
S24
NORMAL OPERATION STOP COMMAND
S25
FINISH
S26
Y
N

FIG.3

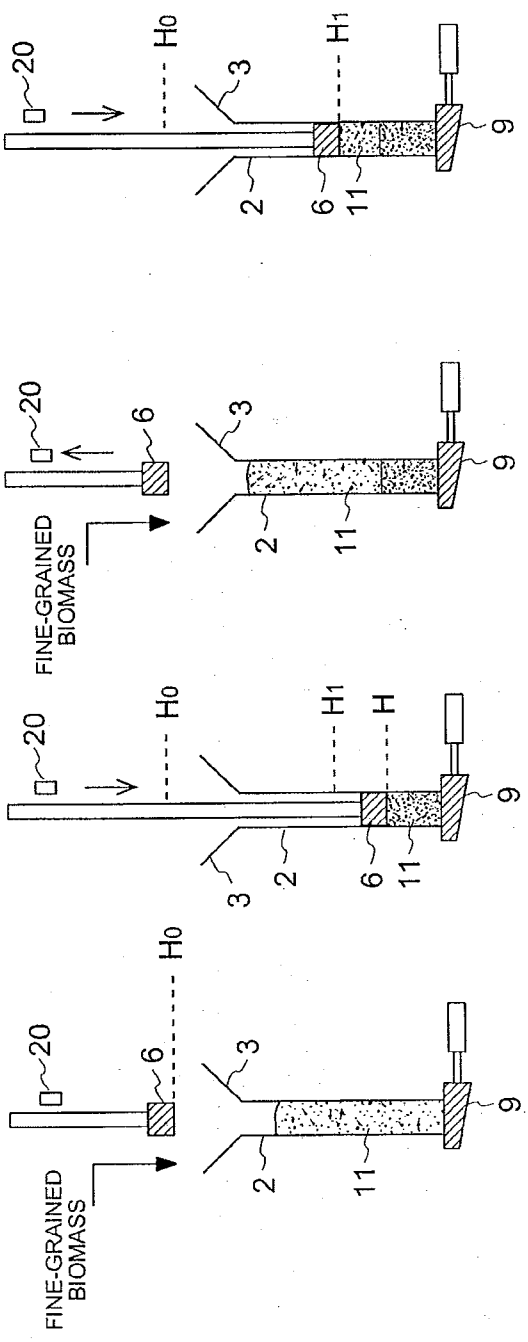


FIG.4

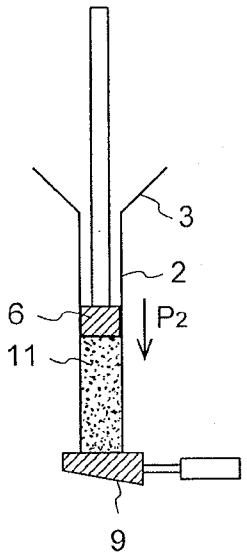


FIG.5

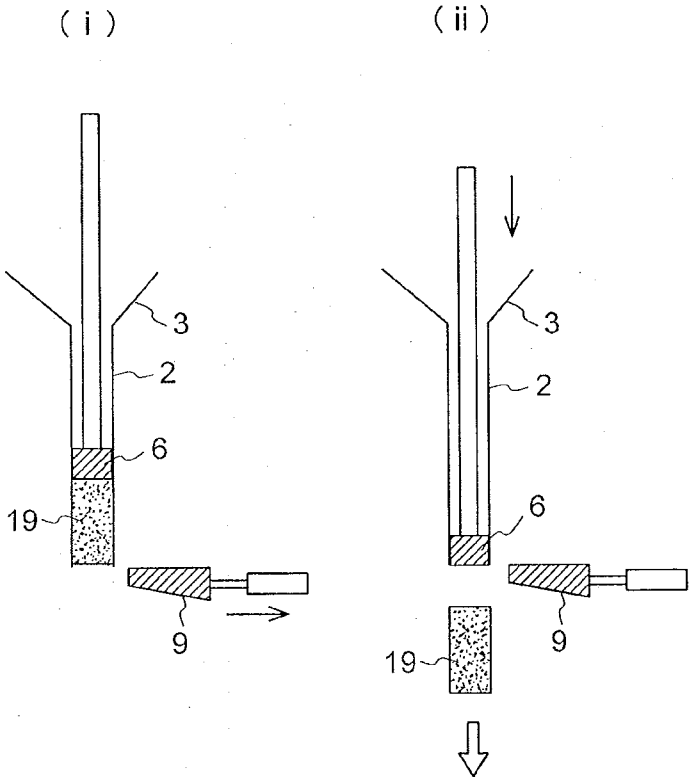


FIG.6

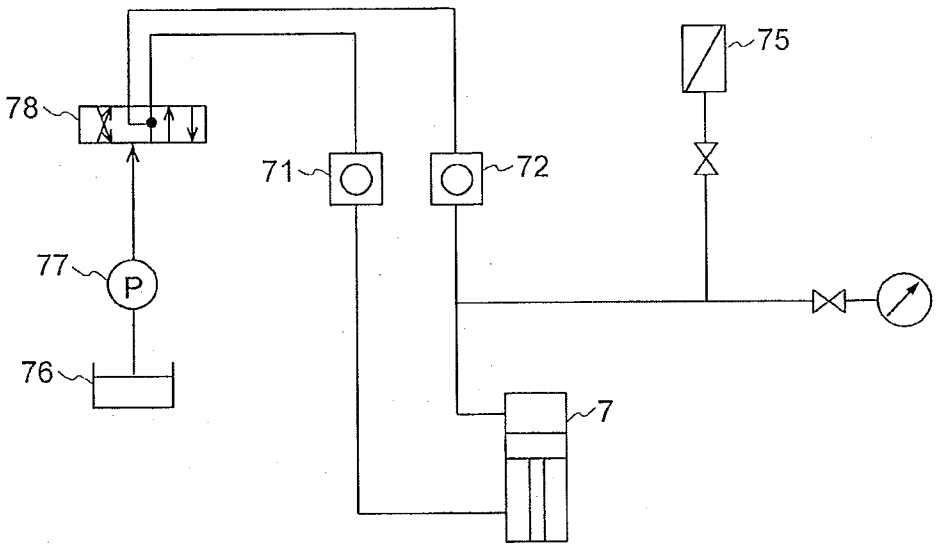


FIG.7

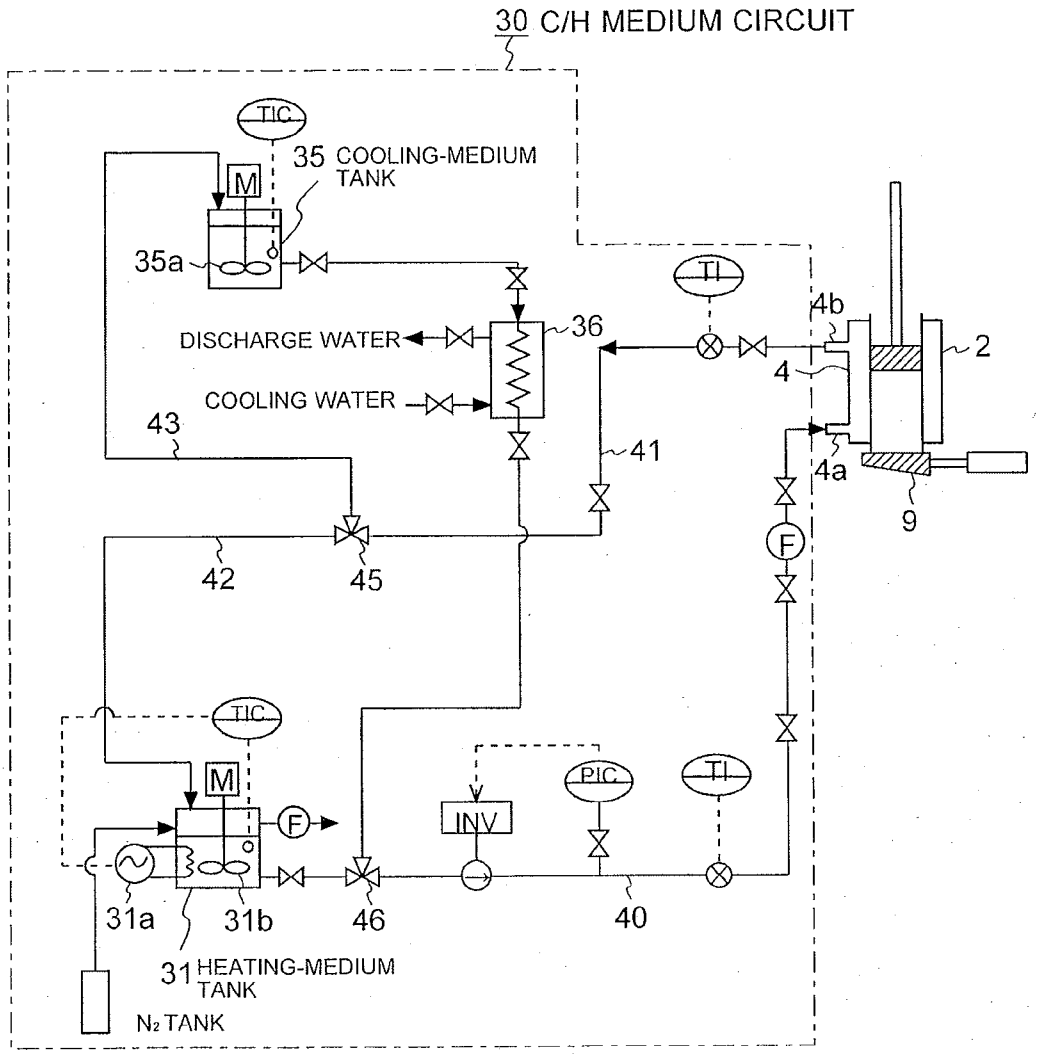


FIG.8

	WOOD BIOMASS (RAW)	COAL COKE	BIOCOKE
MAXIMUM COMPRESSIVE STRENGTH(MPa)	30	15～20	20～200
HEAT VALUE (MJ/kg)	17	29	18～23
APPARENT SPECIFIC GRAVITY	0.4～0.6	1.85	1.2～1.52