FIG. 2

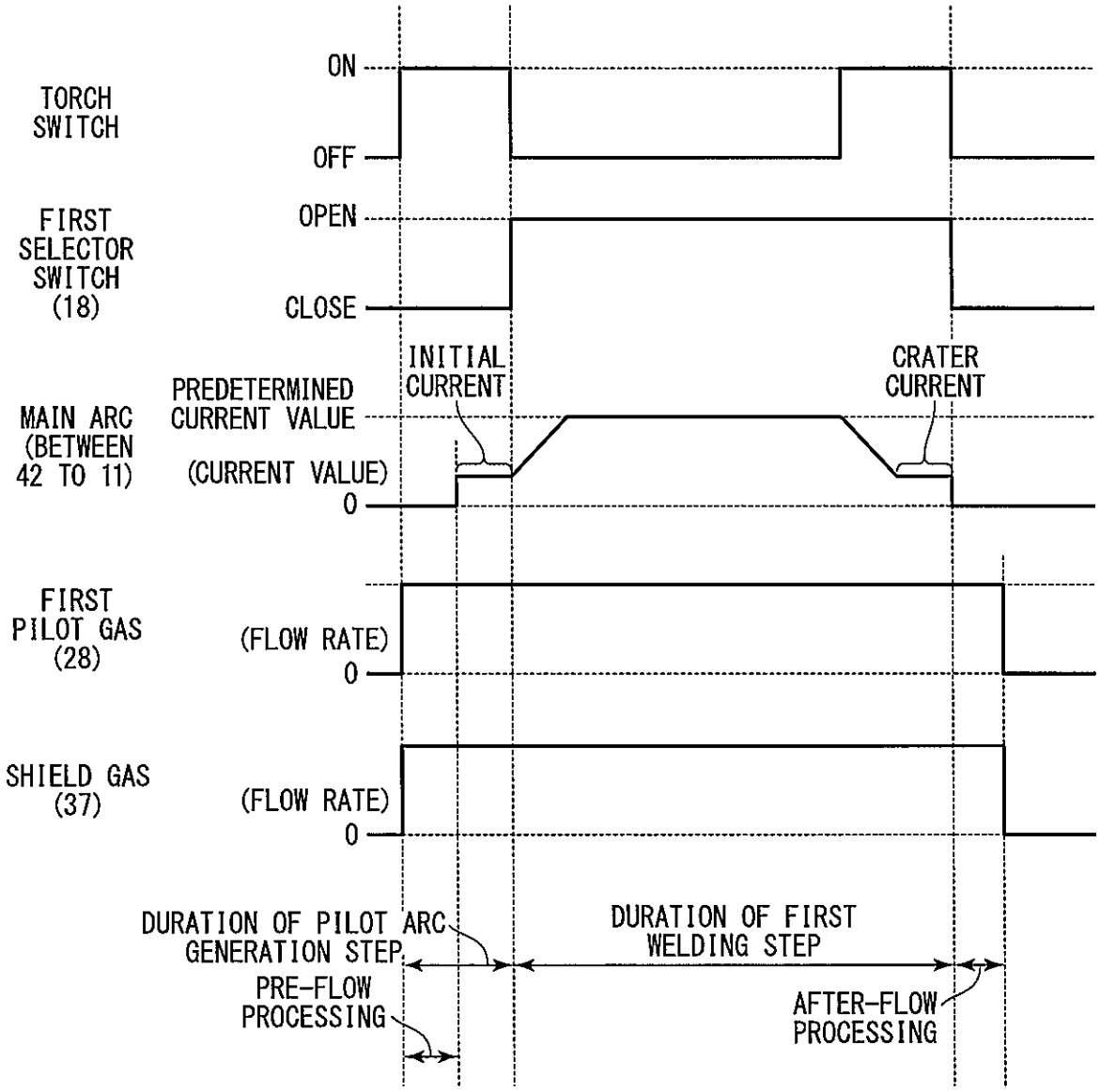

TORCH SWITCH
ON
OFF
FIRST SELECTOR SWITCH (18)
OPEN
CLOSE
MAIN ARC (BETWEEN 42 TO 11)
PREDETERMINED CURRENT VALUE
(CURRENT VALUE)
0
INITIAL CURRENT
CRATER CURRENT
FIRST PILOT GAS (28)
(FLOW RATE)
0
SHIELD GAS (37)
(FLOW RATE)
0
DURATION OF PILOT ARC GENERATION STEP
DURATION OF FIRST WELDING STEP
PRE-FLOW PROCESSING
AFTER-FLOW PROCESSING

FIG. 4

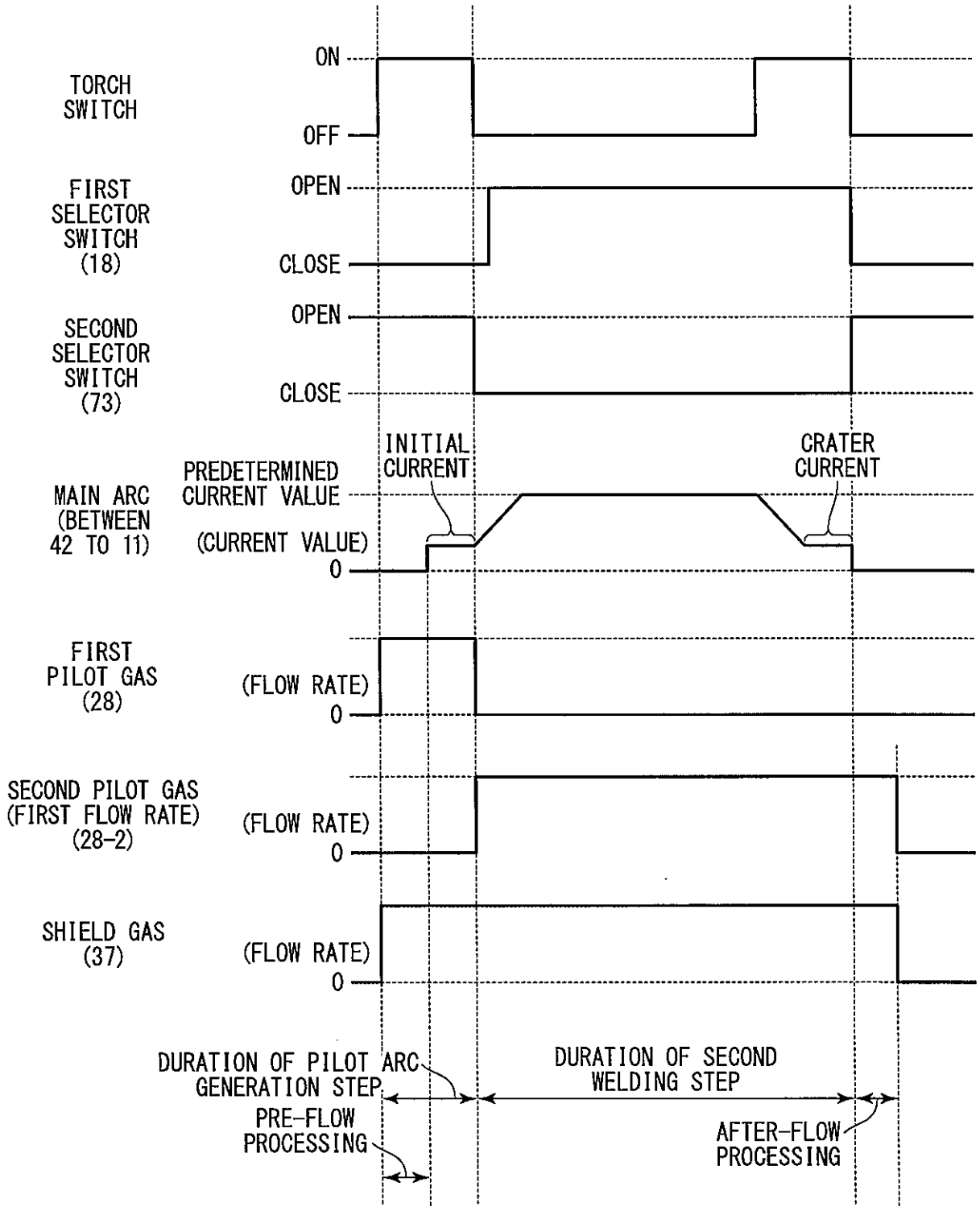
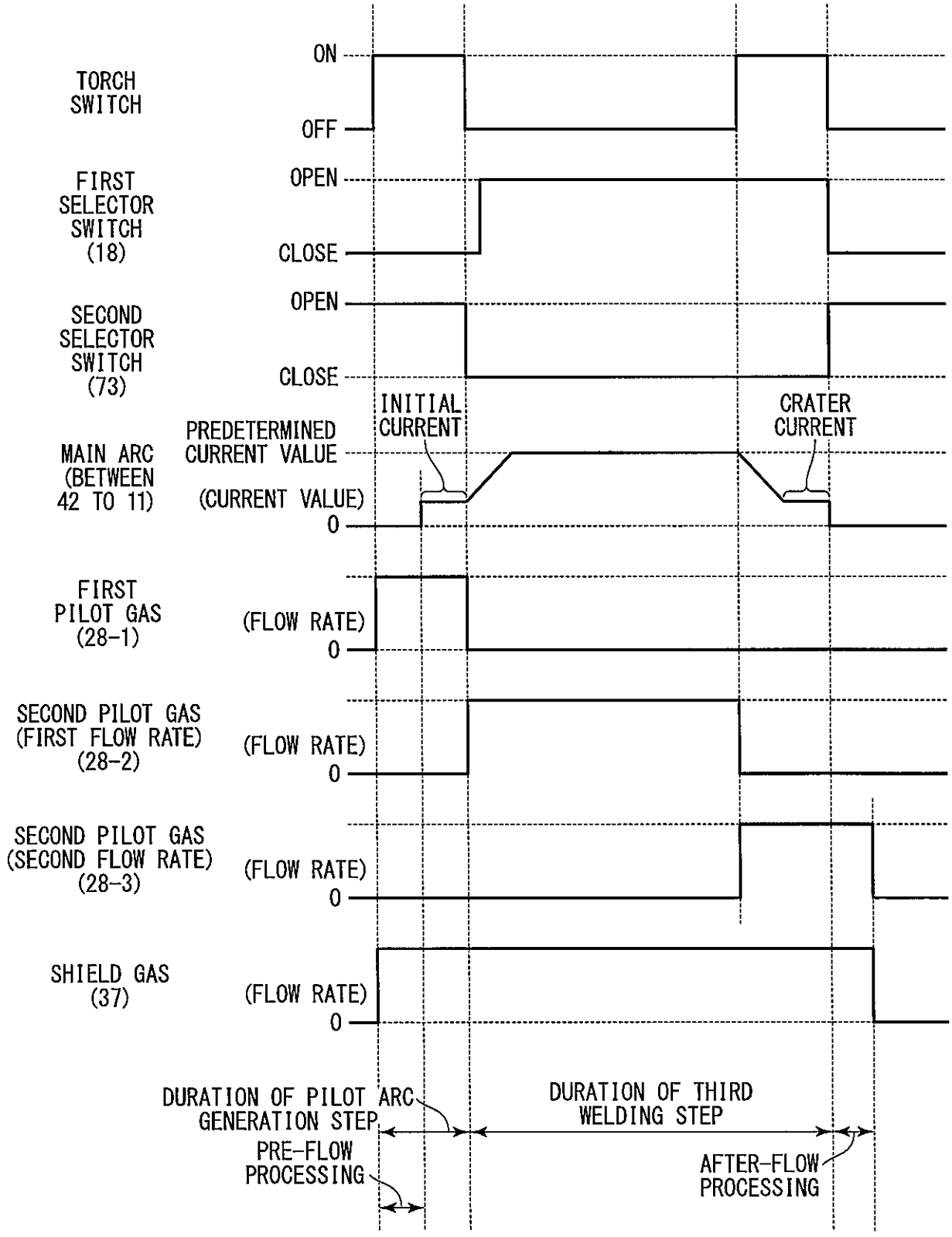

TORCH SWITCH
ON
OFF
FIRST SELECTOR SWITCH (18)
OPEN
CLOSE
SECOND SELECTOR SWITCH (73)
OPEN
CLOSE
MAIN ARC (BETWEEN 42 TO 11)
PREDETERMINED CURRENT VALUE
(CURRENT VALUE)
0
INITIAL CURRENT
CRATER CURRENT
FIRST PILOT GAS (28)
(FLOW RATE)
0
SECOND PILOT GAS (FIRST FLOW RATE) (28-2)
(FLOW RATE)
0
SHIELD GAS (37)
(FLOW RATE)
0
DURATION OF PILOT ARC GENERATION STEP
DURATION OF SECOND WELDING STEP
PRE-FLOW PROCESSING
AFTER-FLOW PROCESSING

FIG. 6


TORCH SWITCH
ON
OFF
FIRST SELECTOR SWITCH (18)
OPEN
CLOSE
SECOND SELECTOR SWITCH (73)
OPEN
CLOSE
MAIN ARC (BETWEEN 42 TO 11)
PREDETERMINED CURRENT VALUE
INITIAL CURRENT
CRATER CURRENT
(CURRENT VALUE)
0
FIRST PILOT GAS (28-1)
(FLOW RATE)
0
SECOND PILOT GAS (FIRST FLOW RATE) (28-2)
(FLOW RATE)
0
SECOND PILOT GAS (SECOND FLOW RATE) (28-3)
(FLOW RATE)
0
SHIELD GAS (37)
(FLOW RATE)
0
DURATION OF PILOT ARC GENERATION STEP
DURATION OF THIRD WELDING STEP
PRE-FLOW PROCESSING
AFTER-FLOW PROCESSING