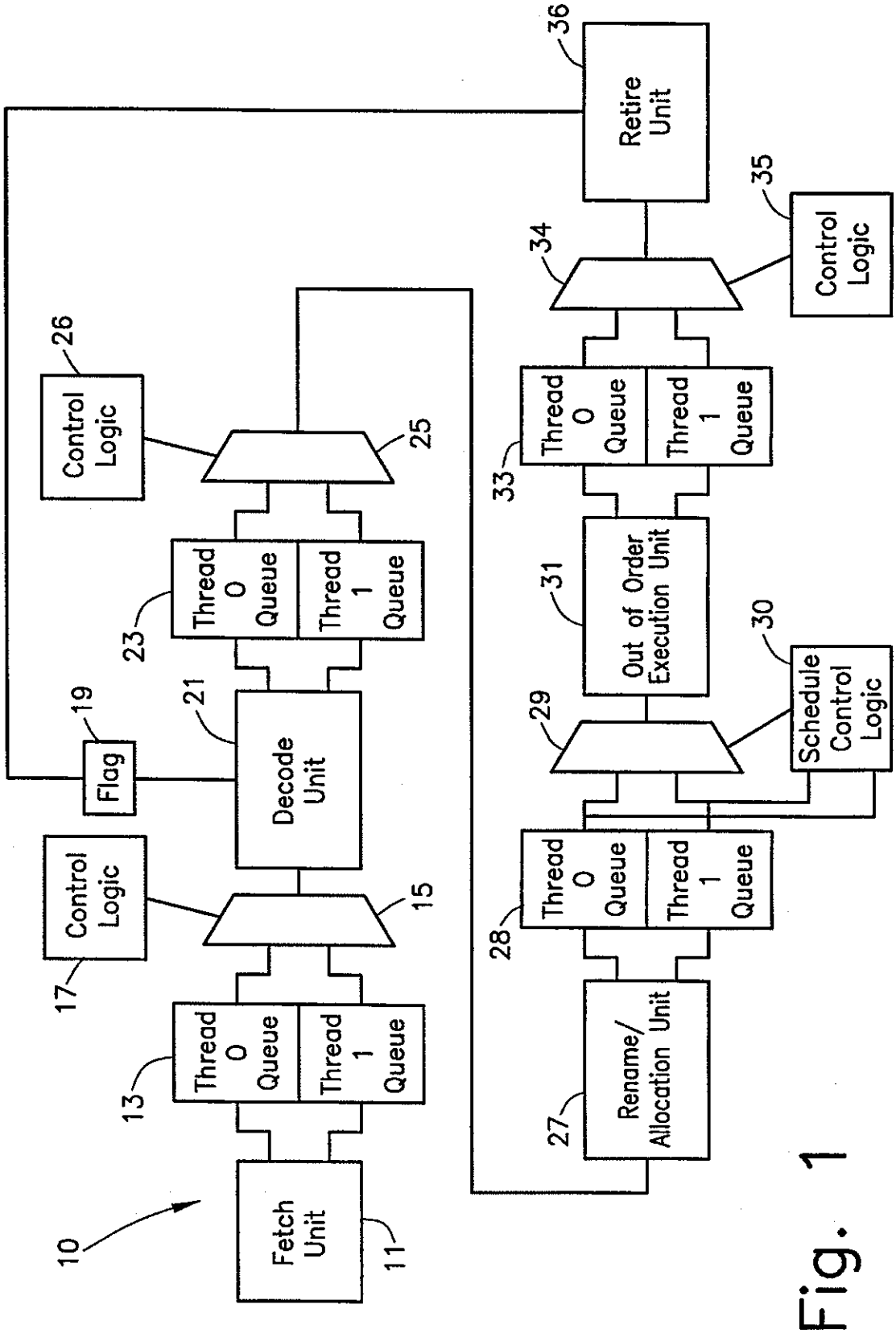

10
Fetch Unit
11
Thread 0 Queue
Thread 1 Queue
13
Control Logic
17
15
Flag
19
Decode Unit
21
Thread 0 Queue
Thread 1 Queue
23
Control Logic
26
25
Rename/ Allocation Unit
27
Thread 0 Queue
Thread 1 Queue
28
Schedule Control Logic
30
Out of Order Execution Unit
31
29
Thread 0 Queue
Thread 1 Queue
33
Control Logic
35
34
Retire Unit
36

Fig. 1

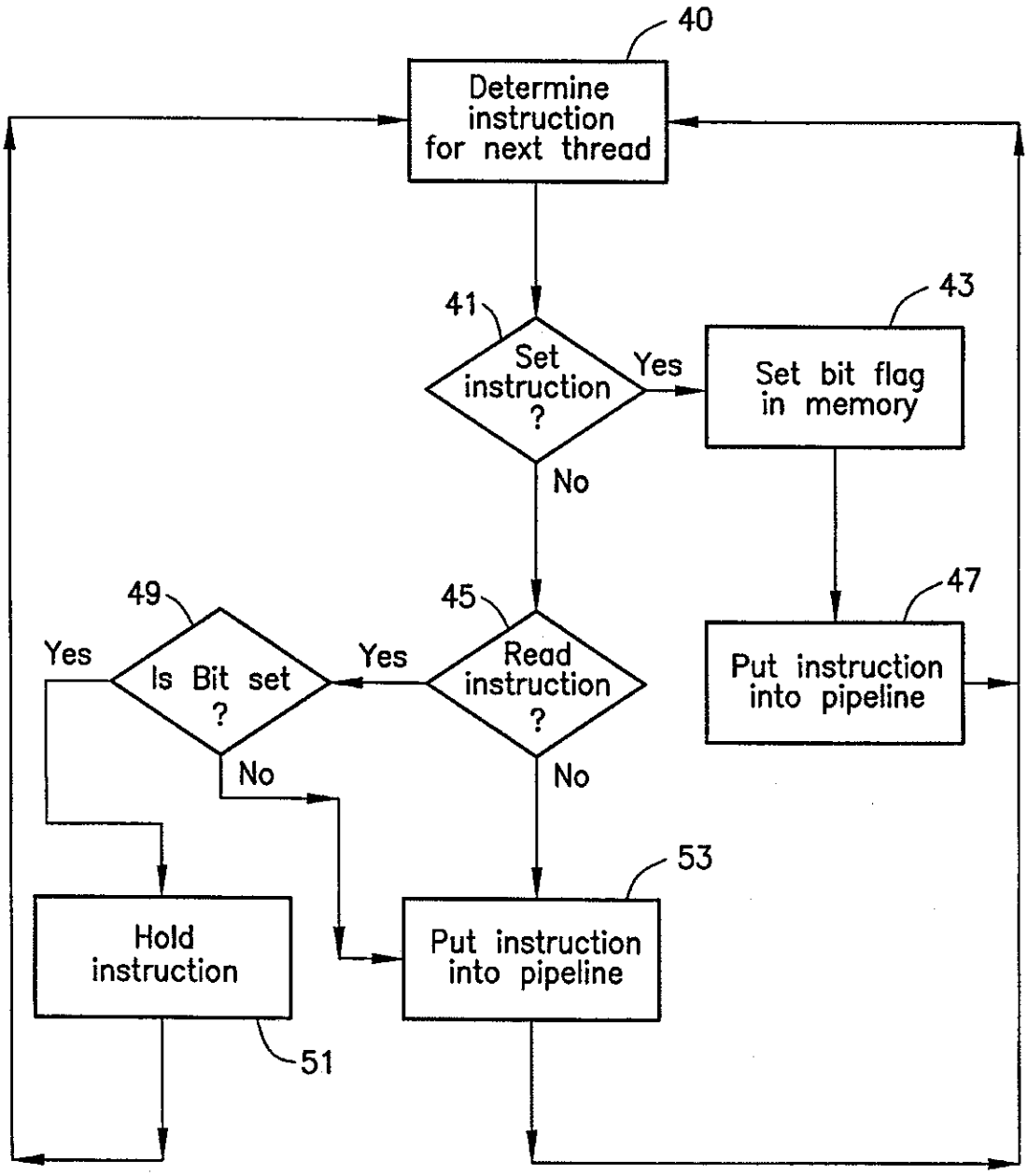

40
Determine instruction for next thread
41
Set instruction ?
Yes
43
Set bit flag in memory
No
45
Read instruction ?
Yes
49
Is Bit set ?
Yes
No
No
47
Put instruction into pipeline
53
Put instruction into pipeline
Hold instruction
51

Fig. 2

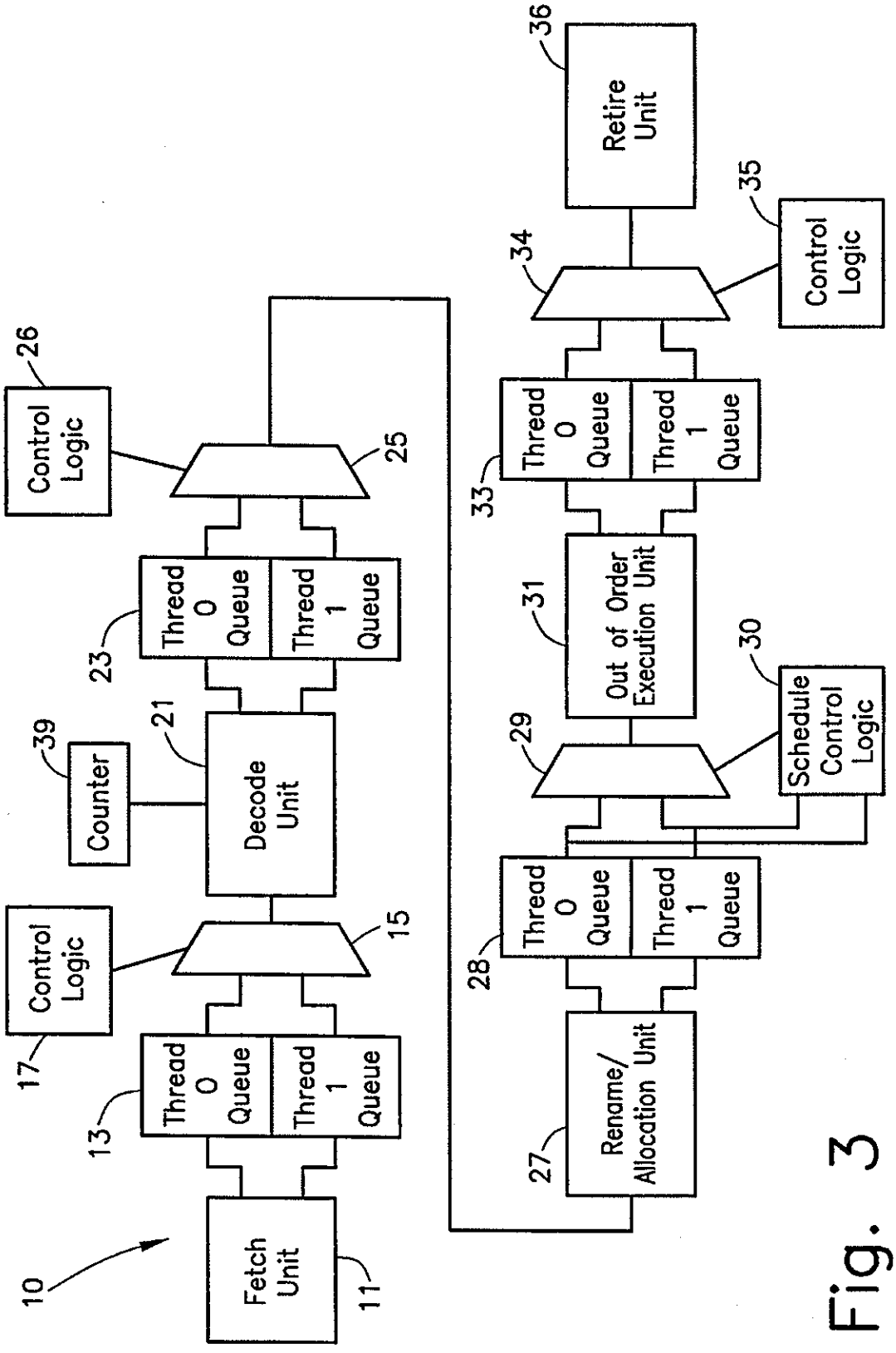

10
Fetch Unit
11
Thread 0 Queue
Thread 1 Queue
13
Control Logic
17
15
Decode Unit
21
Counter
39
Thread 0 Queue
Thread 1 Queue
23
Control Logic
26
25
Rename/ Allocation Unit
27
Thread 0 Queue
Thread 1 Queue
28
Schedule Control Logic
30
29
Out of Order Execution Unit
31
Thread 0 Queue
Thread 1 Queue
33
Control Logic
35
34
Retire Unit
36

Fig. 3

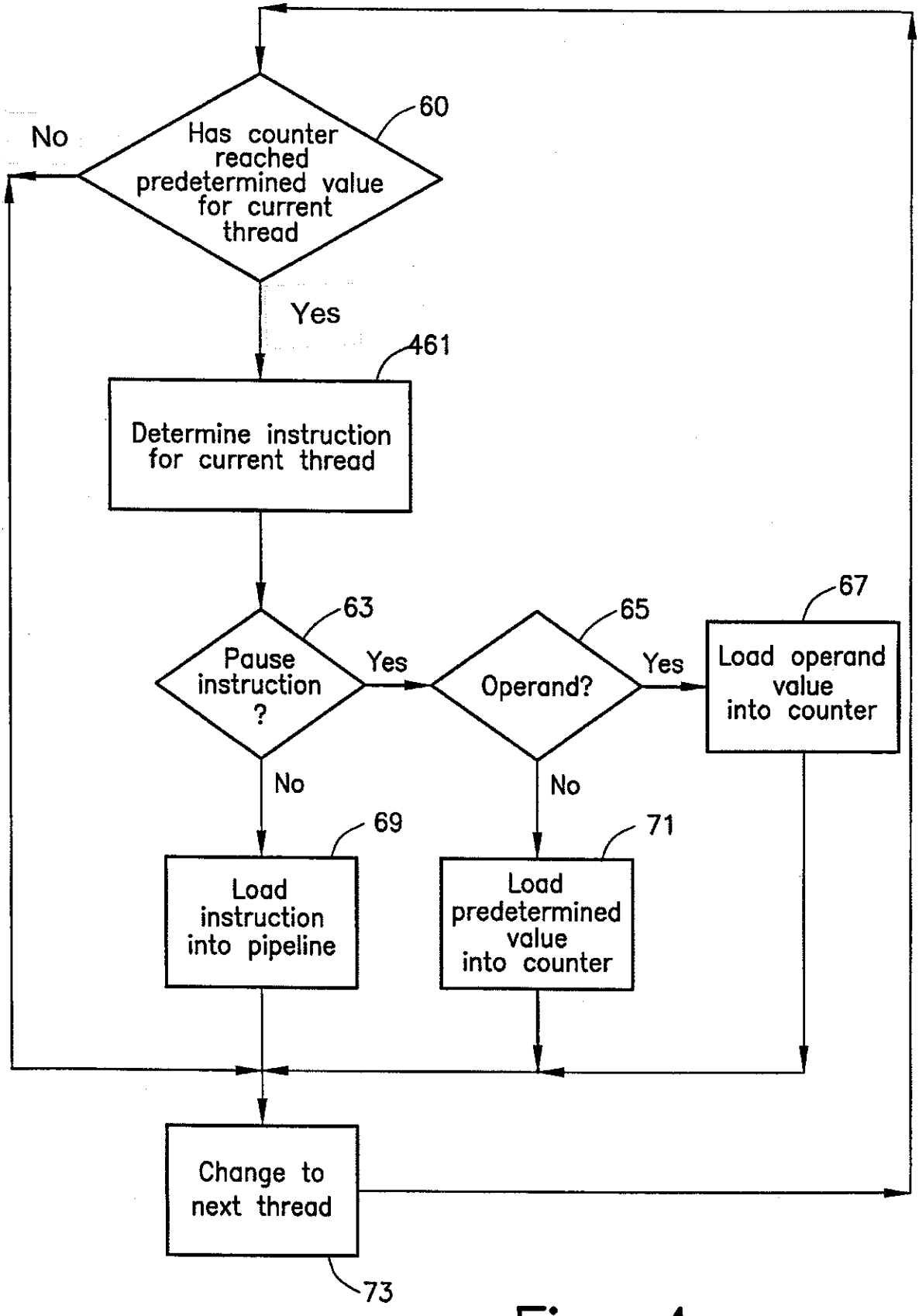

Has counter reached predetermined value for current thread
60
No
Yes
461
Determine instruction for current thread
Pause instruction ?
63
Yes
Operand?
65
Yes
Load operand value into counter
67
No
No
Load instruction into pipeline
69
Load predetermined value into counter
71
Change to next thread
73

Fig. 4