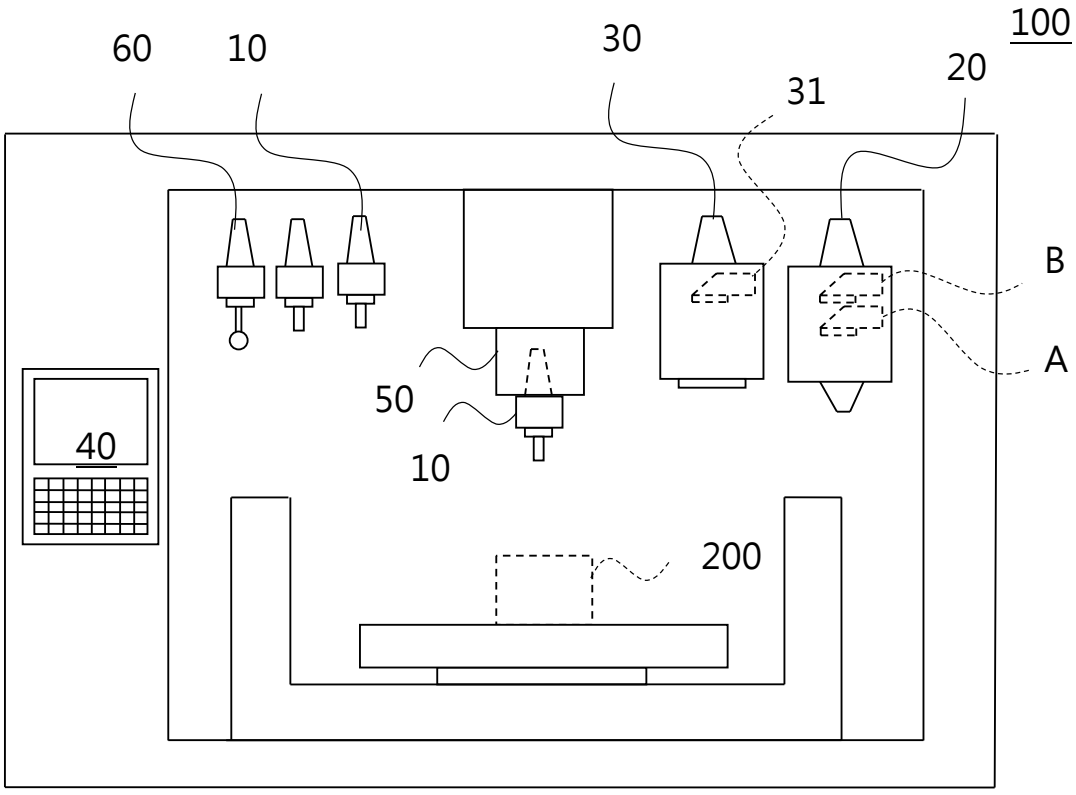


Fig. 1

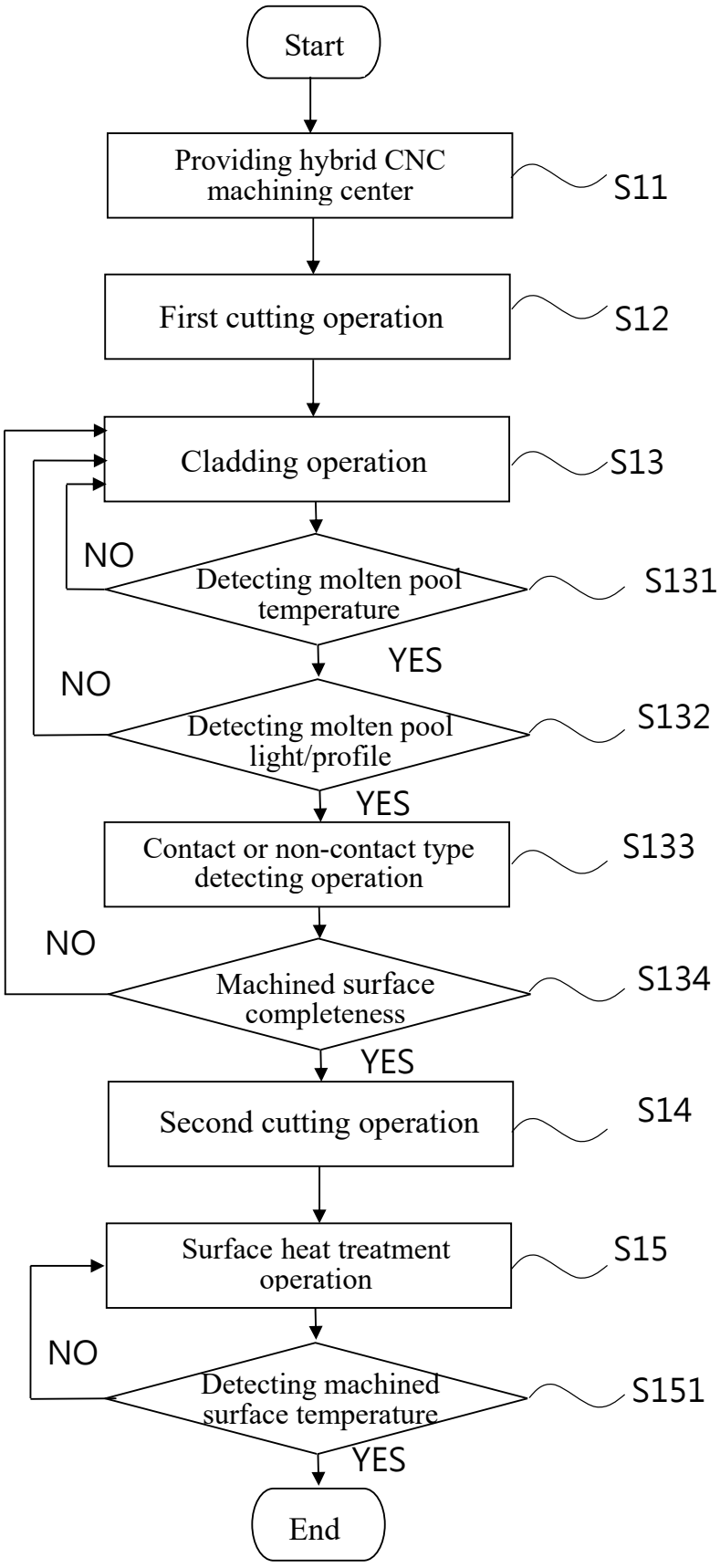

Start
Providing hybrid CNC machining center
S11
First cutting operation
S12
Cladding operation
S13
NO
Detecting molten pool temperature
S131
YES
NO
Detecting molten pool light/profile
S132
YES
Contact or non-contact type detecting operation
S133
NO
Machined surface completeness
S134
YES
Second cutting operation
S14
Surface heat treatment operation
S15
NO
Detecting machined surface temperature
S151
YES
End

Fig. 2

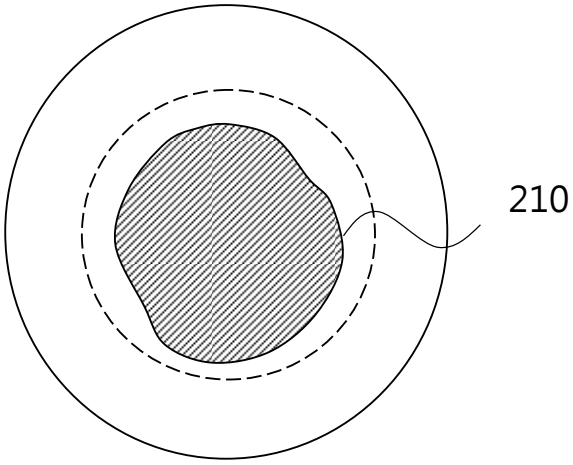


Fig. 3A

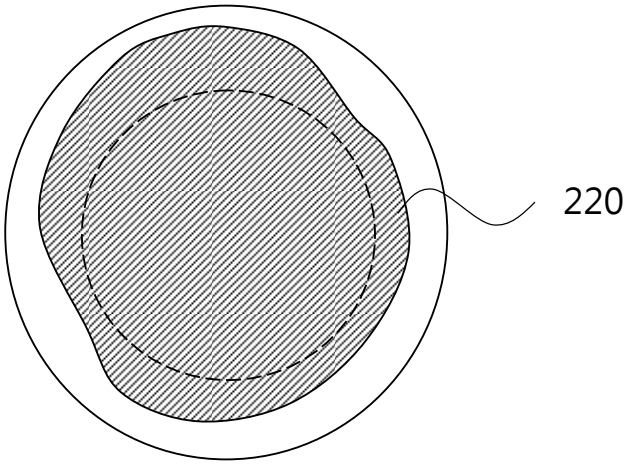


FIG. 3B

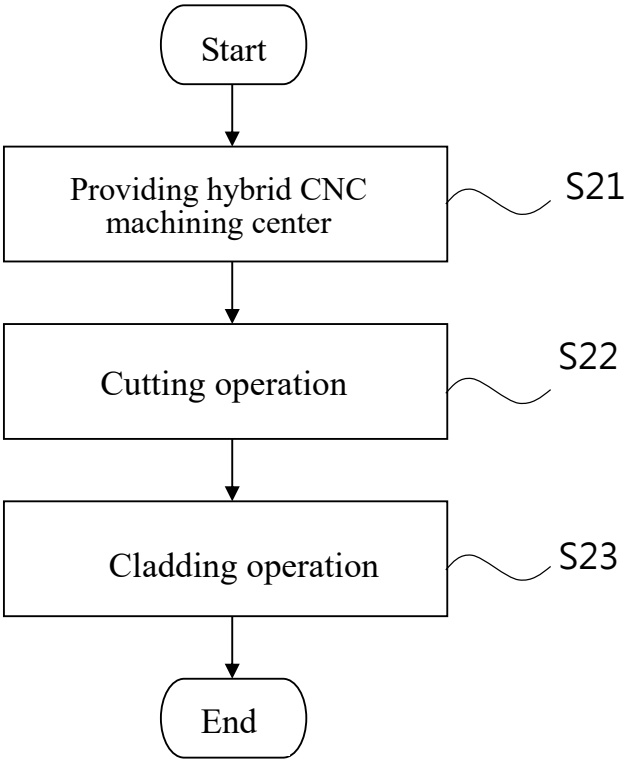

Start
Providing hybrid CNC machining center
S21
Cutting operation
S22
Cladding operation
S23
End

FIG. 4

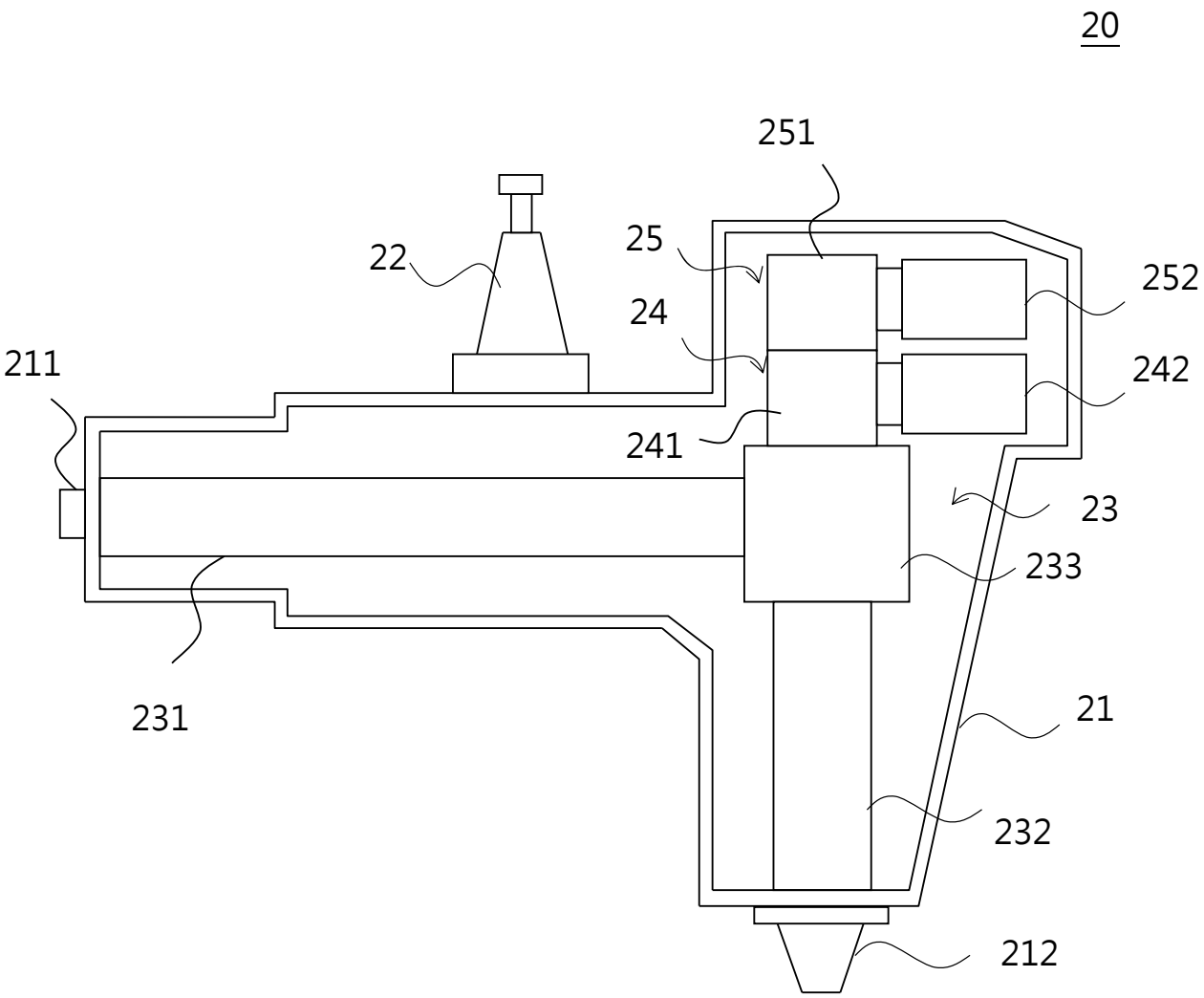


FIG. 5

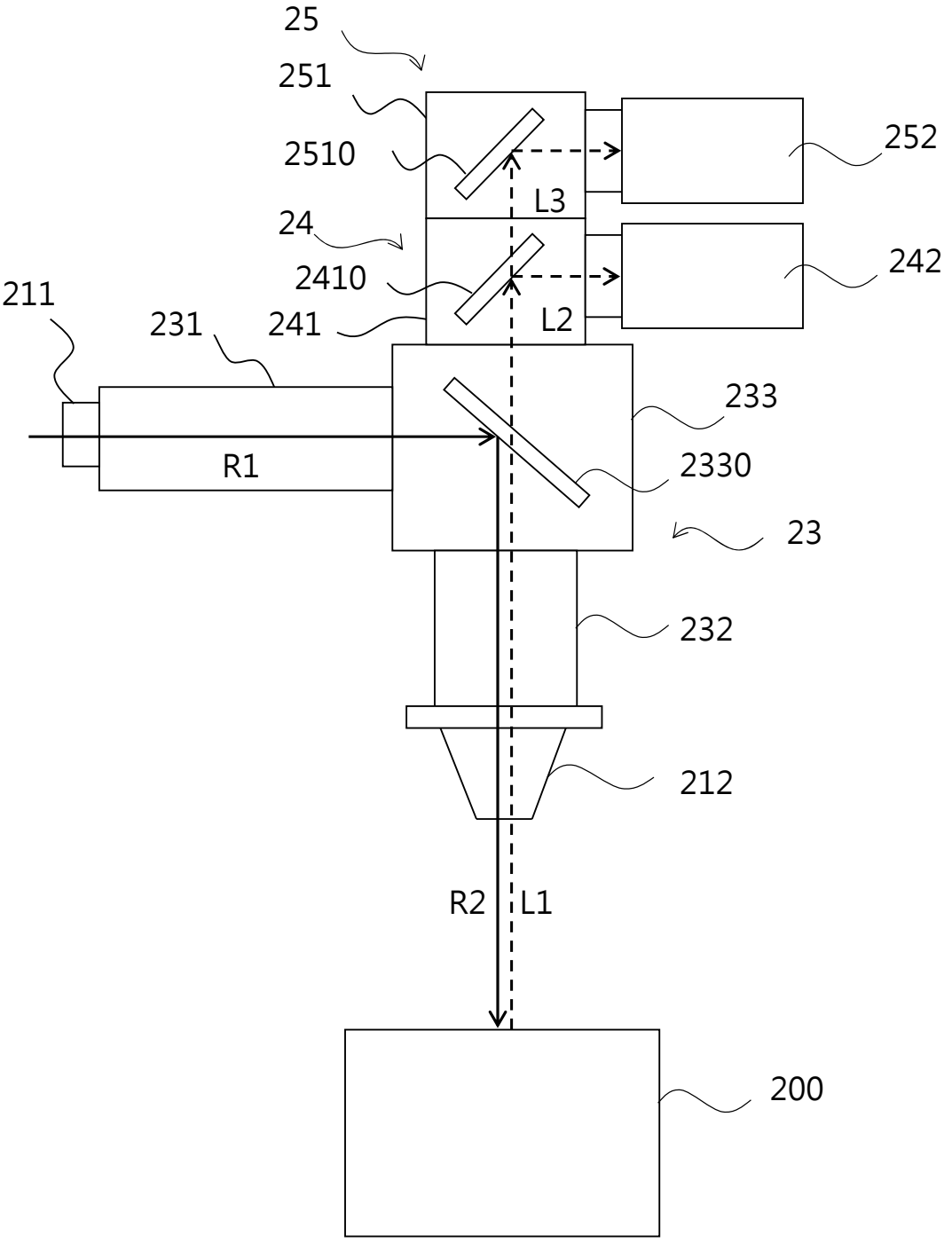

25
251
2510
252
L3
24
2410
242
211
231
241
L2
233
R1
2330
23
232
212
R2
L1
200

FIG. 6

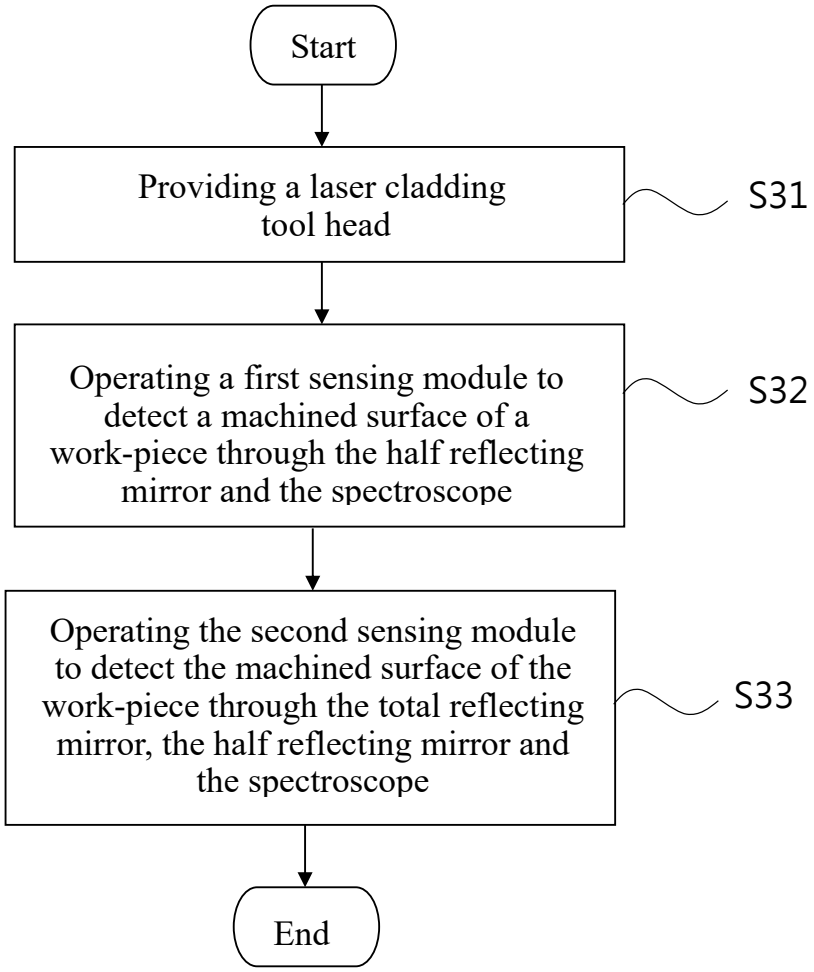

Start
Providing a laser cladding tool head
S31
Operating a first sensing module to detect a machined surface of a work-piece through the half reflecting mirror and the spectroscope
S32
Operating the second sensing module to detect the machined surface of the work-piece through the total reflecting mirror, the half reflecting mirror and the spectroscope
S33
End

FIG. 7