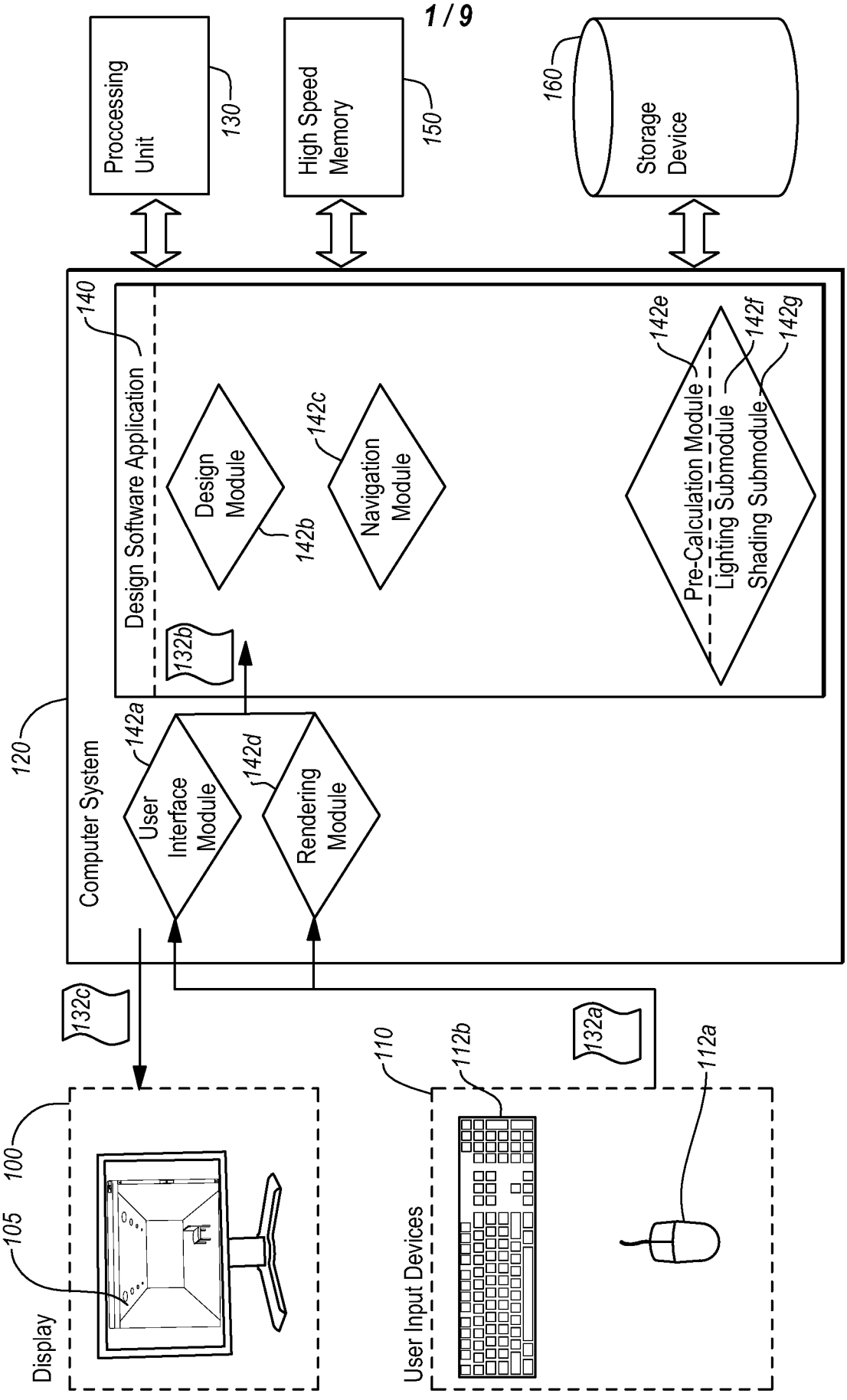
Proccessing Unit
130
High Speed Memory
150
160
Storage Device
140
Design Software Application
Design Module
142b
142c
Navigation Module
142e
142f
142g
Pre-Calculation Module
Lighting Submodule
Shading Submodule
132b
120
Computer System
142a
User Interface Module
142d
Rendering Module
132c
132a
110
112b
112a
100
105
Display
User Input Devices

FIG. 1

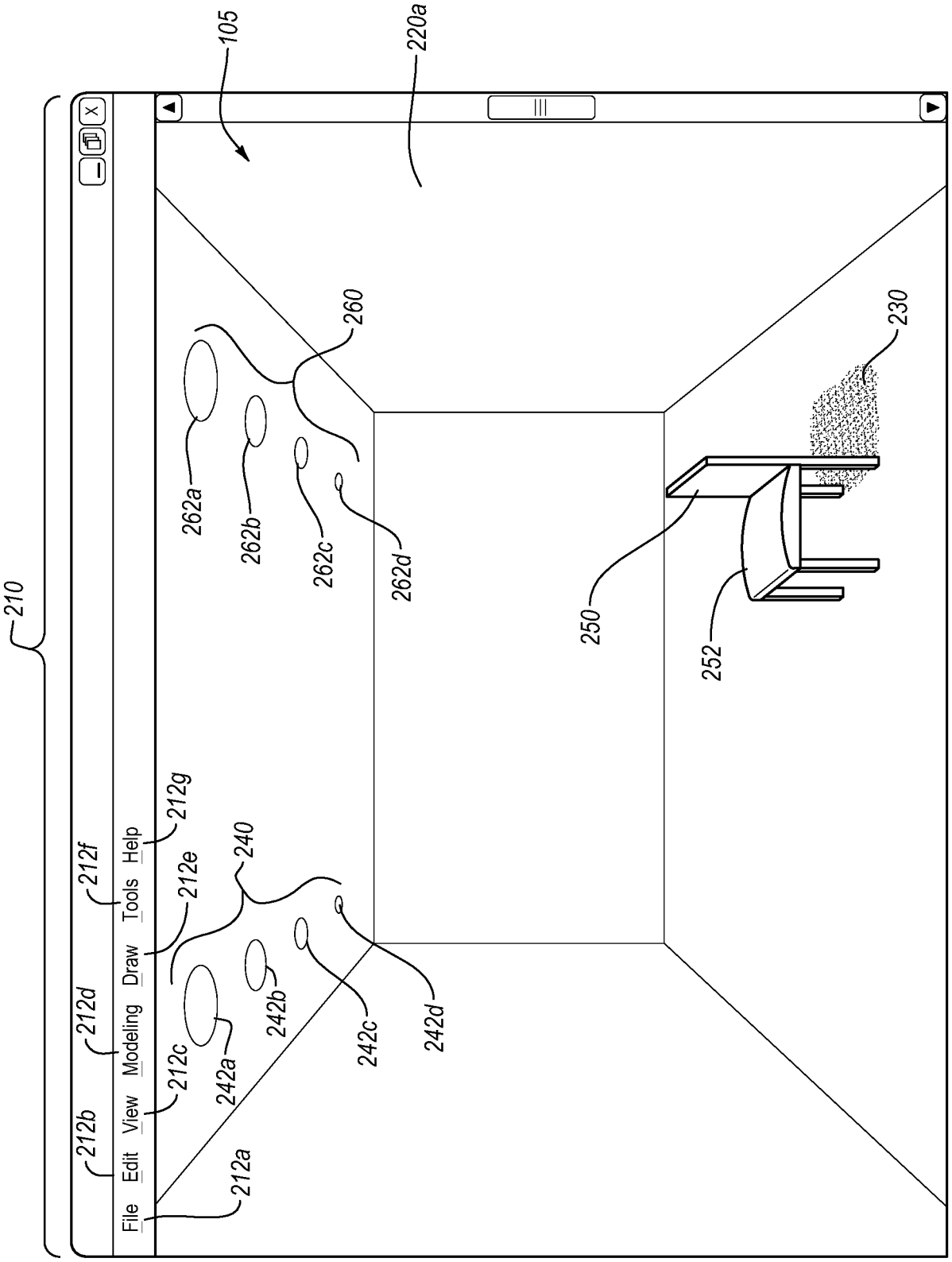
105
220a
210
260
230
262a
262b
262c
262d
250
252
240
242a
242b
242c
242d
212a
212b
212c
212d
212e
212f
212g
File
Edit
View
Modeling
Draw
Tools
Help

FIG. 2

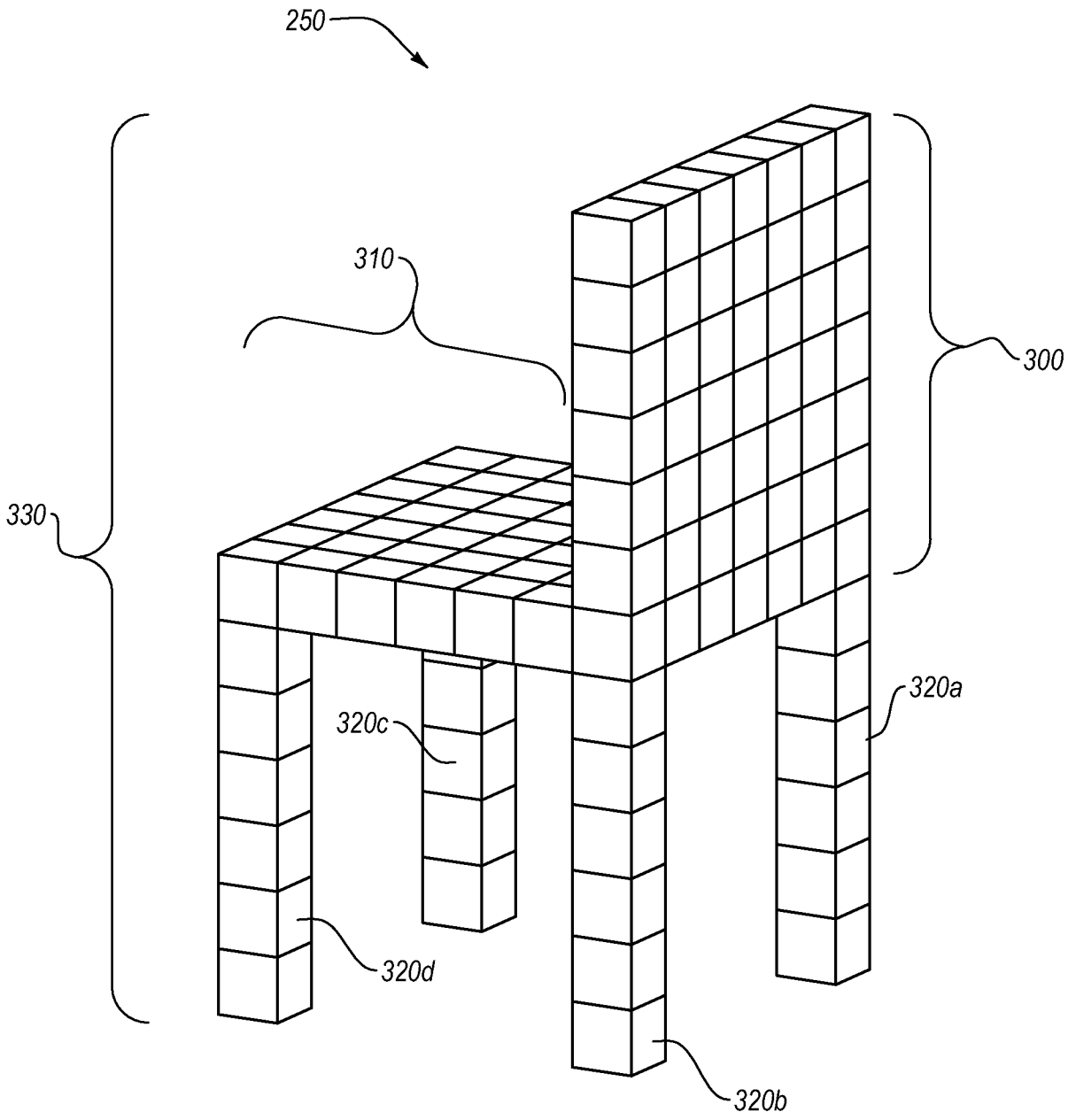

FIG. 3

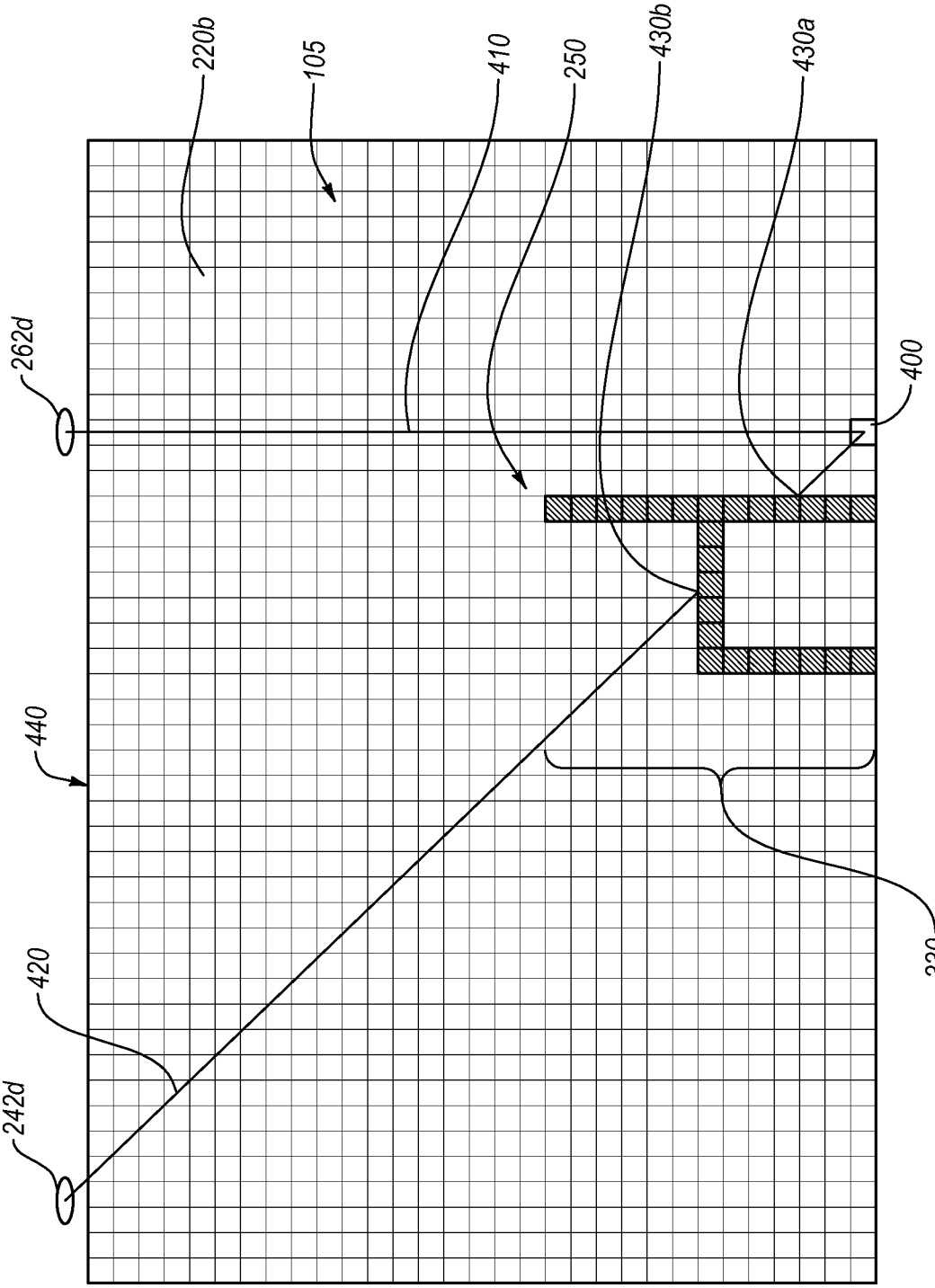

FIG. 4

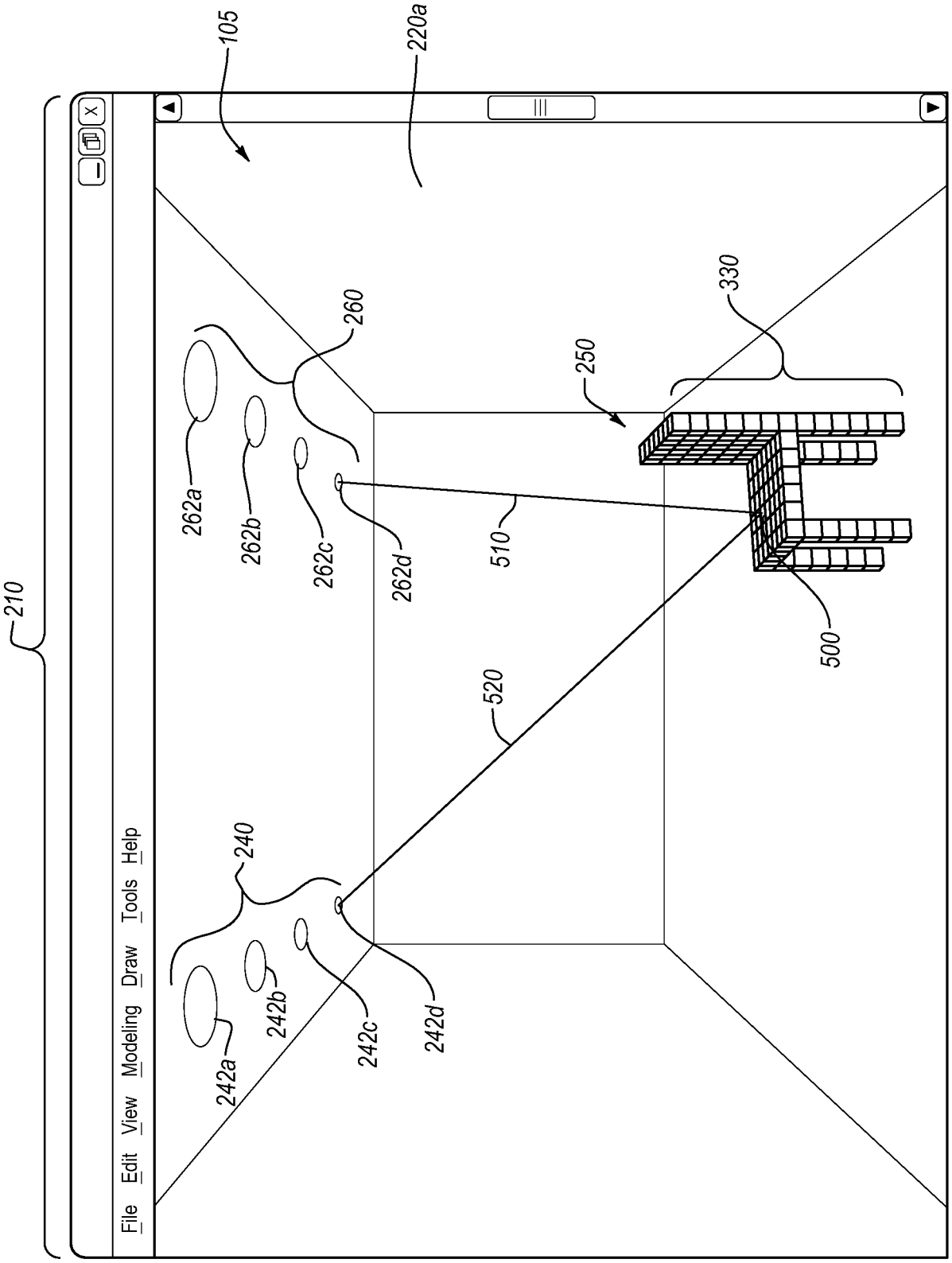
105
220a
210
File Edit View Modeling Draw Tools Help
260
262a
262b
262c
262d
330
250
510
500
520
240
242a
242b
242c
242d

FIG. 5

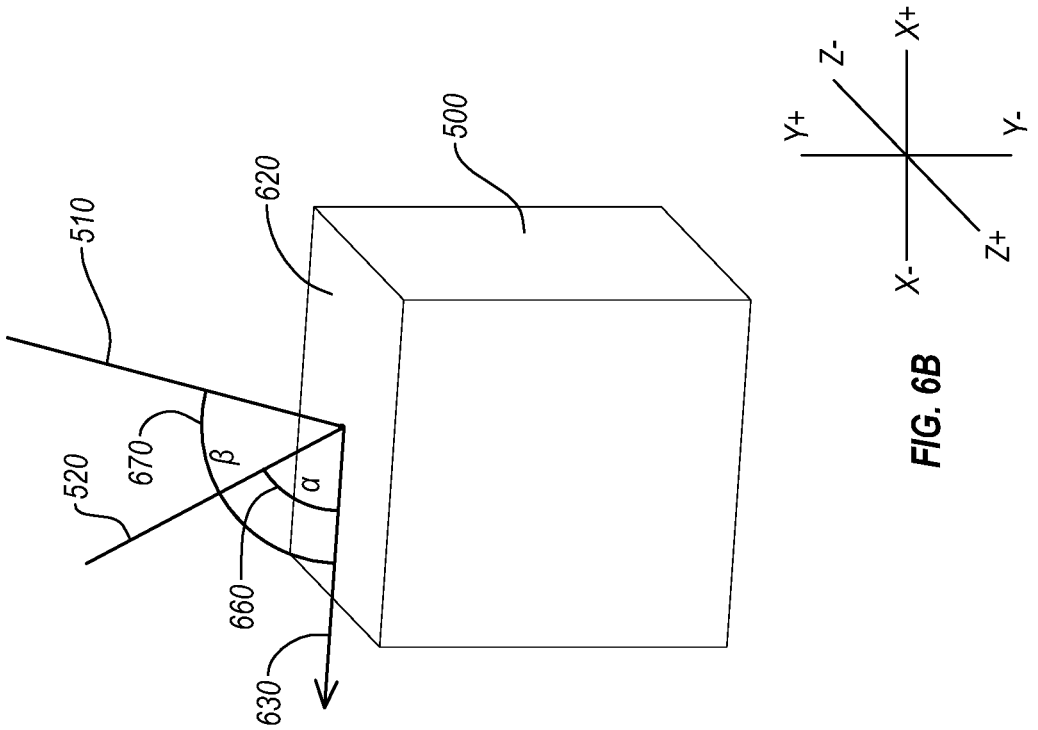
500
620
510
670
β
520
α
660
630
X+
Z-
Y+
Y-
Z+
X-

FIG. 6B

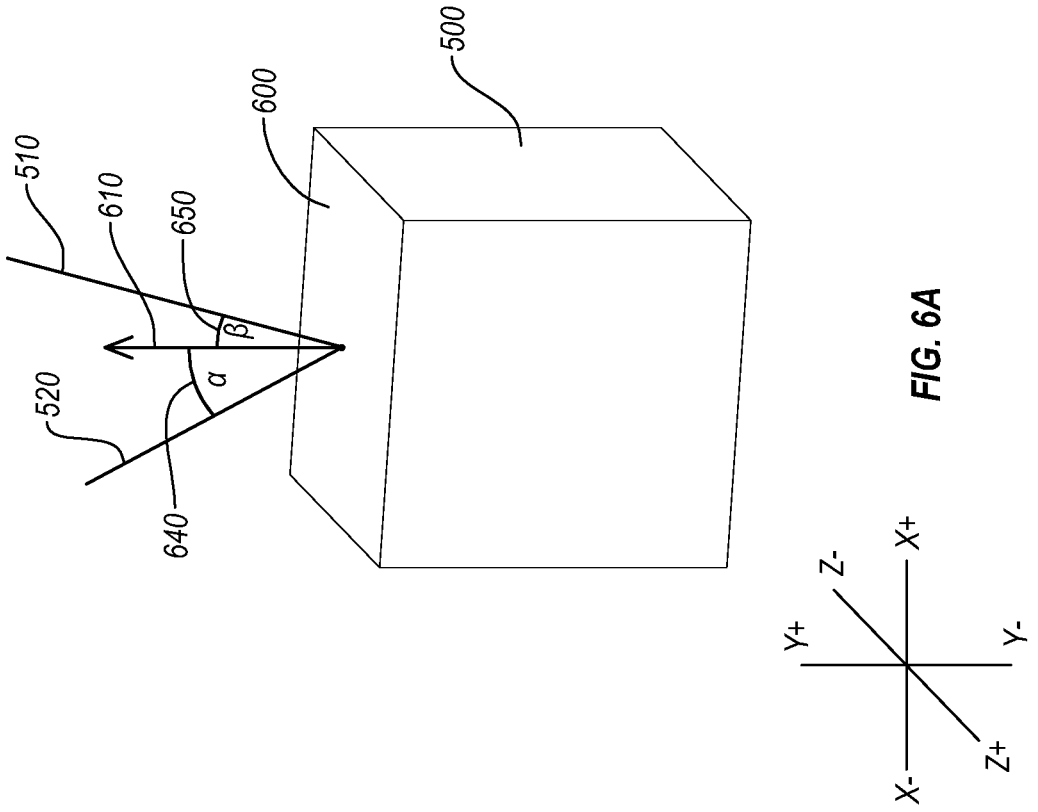
500
600
510
610
650
β
520
α
640
X+
Z-
Y+
Y-
Z+
X-

FIG. 6A

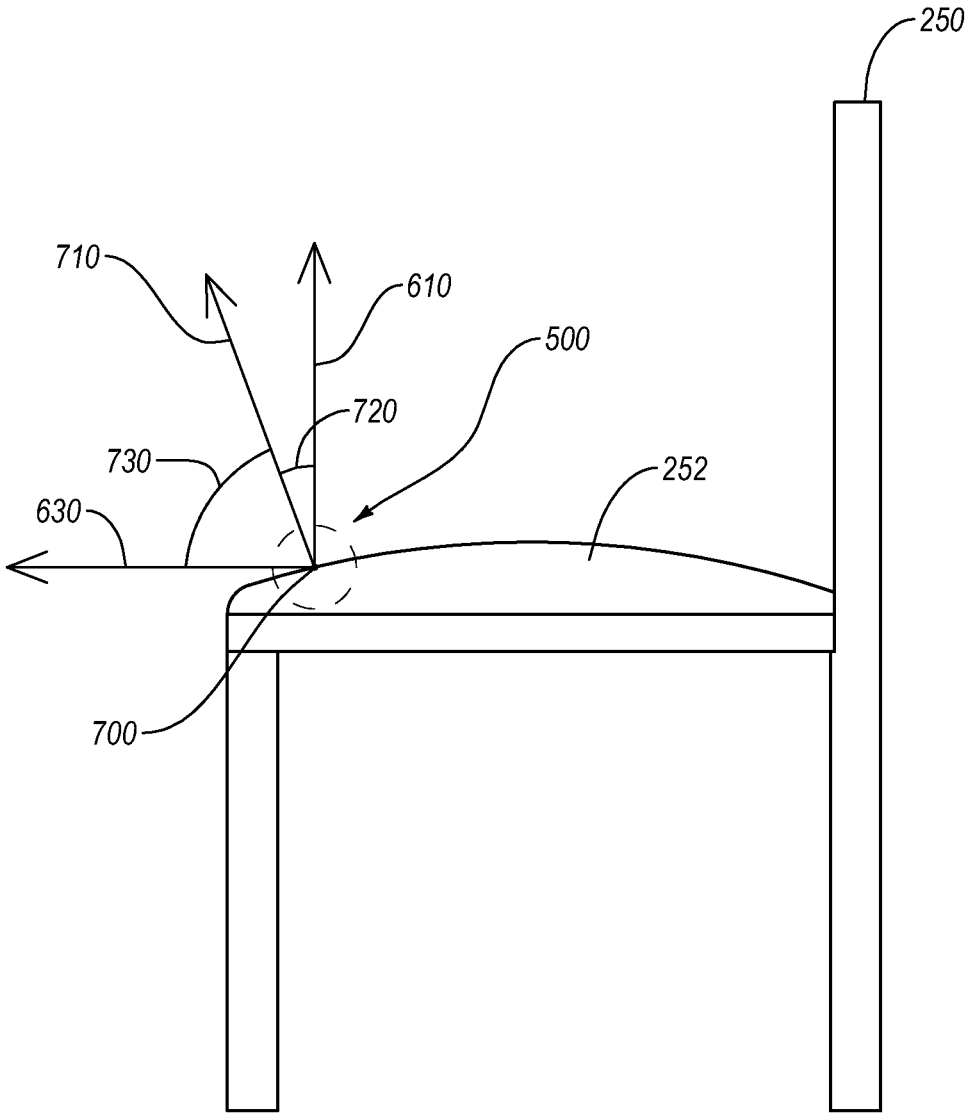

FIG. 7

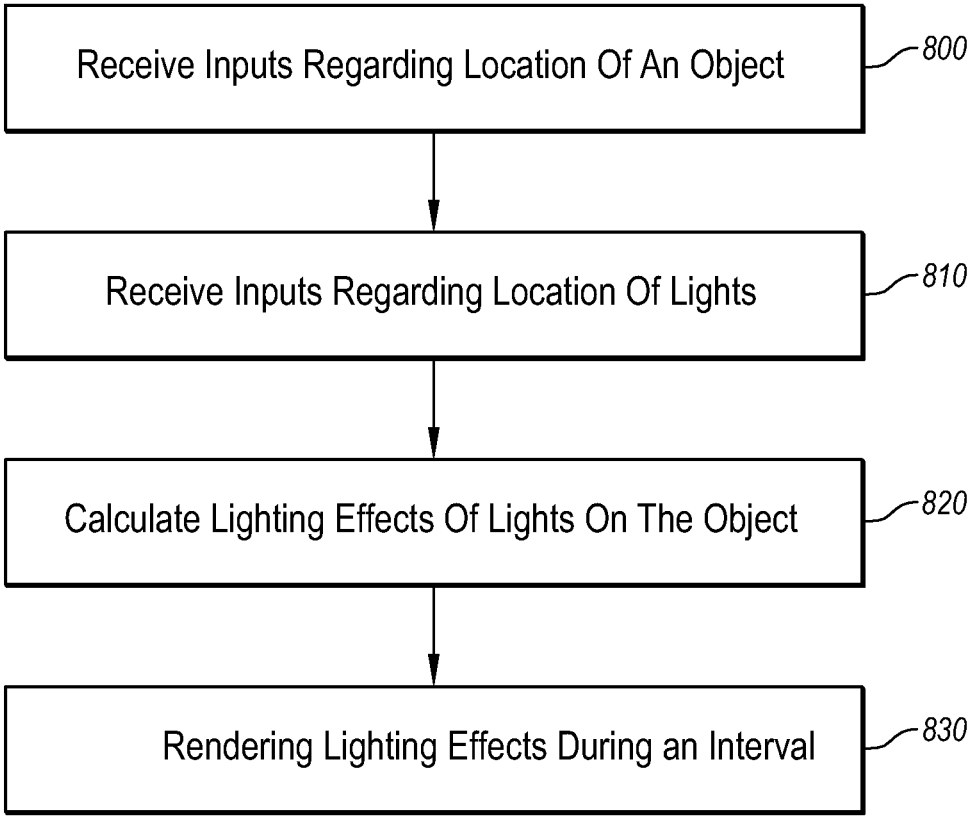
Receive Inputs Regarding Location Of An Object
800
Receive Inputs Regarding Location Of Lights
810
Calculate Lighting Effects Of Lights On The Object
820
Rendering Lighting Effects During an Interval
830

FIG. 8

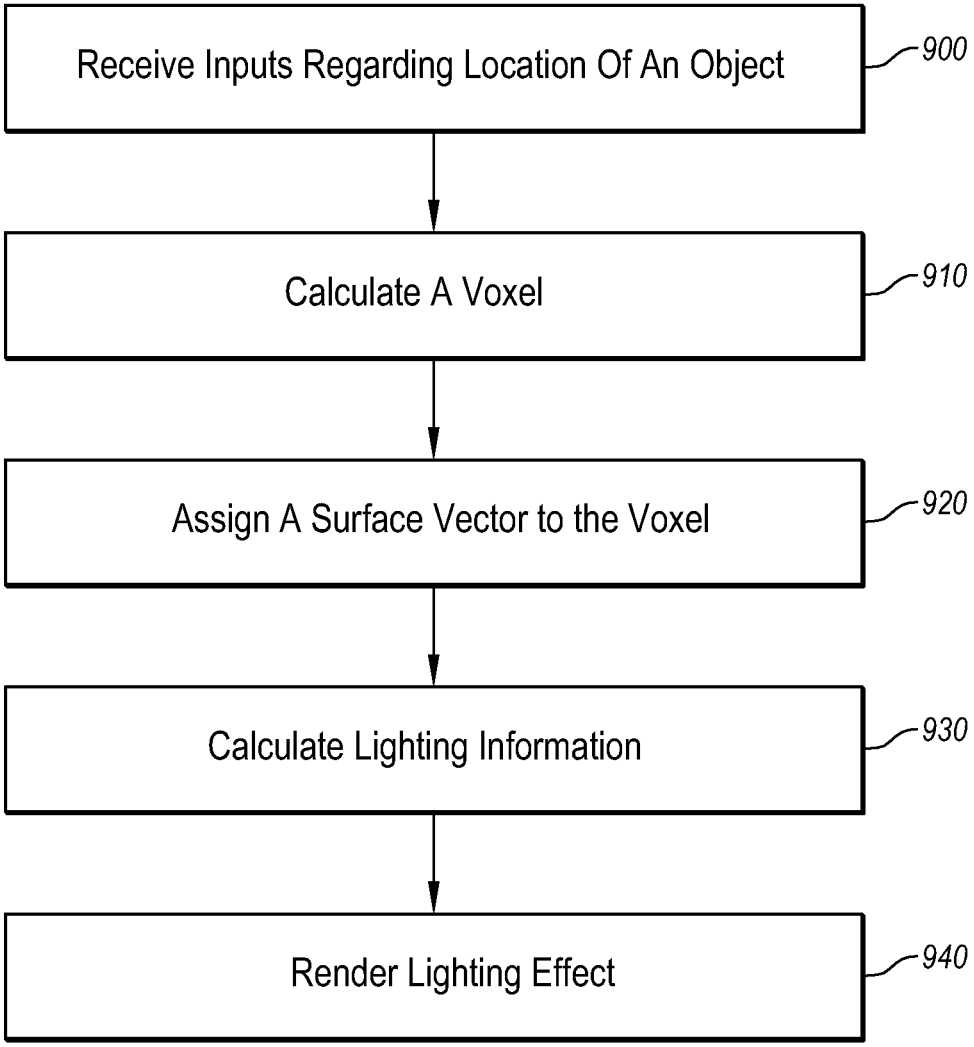
Receive Inputs Regarding Location Of An Object
900
Calculate A Voxel
910
Assign A Surface Vector to the Voxel
920
Calculate Lighting Information
930
Render Lighting Effect
940

FIG. 9