

FIG. 1

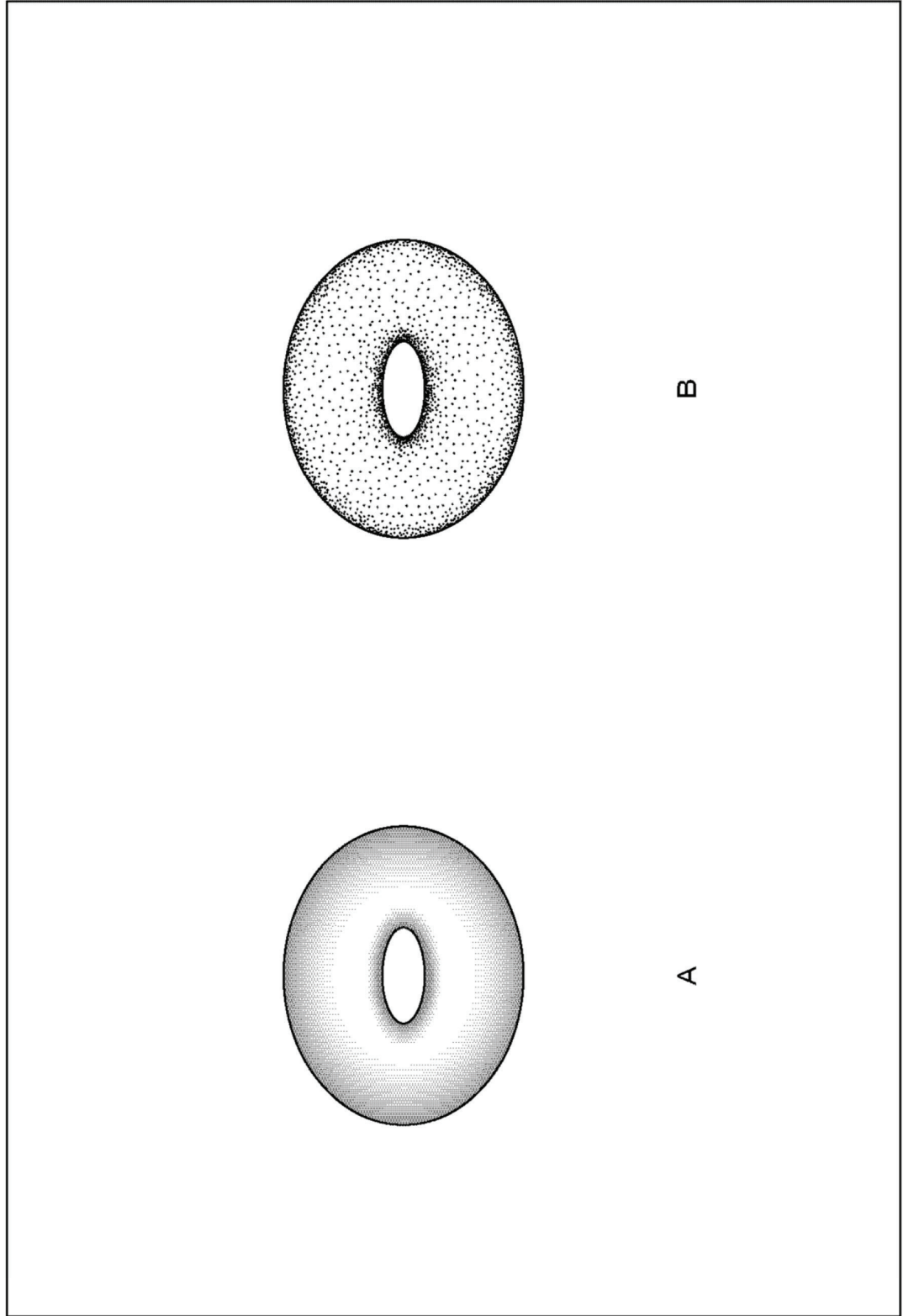


FIG. 2

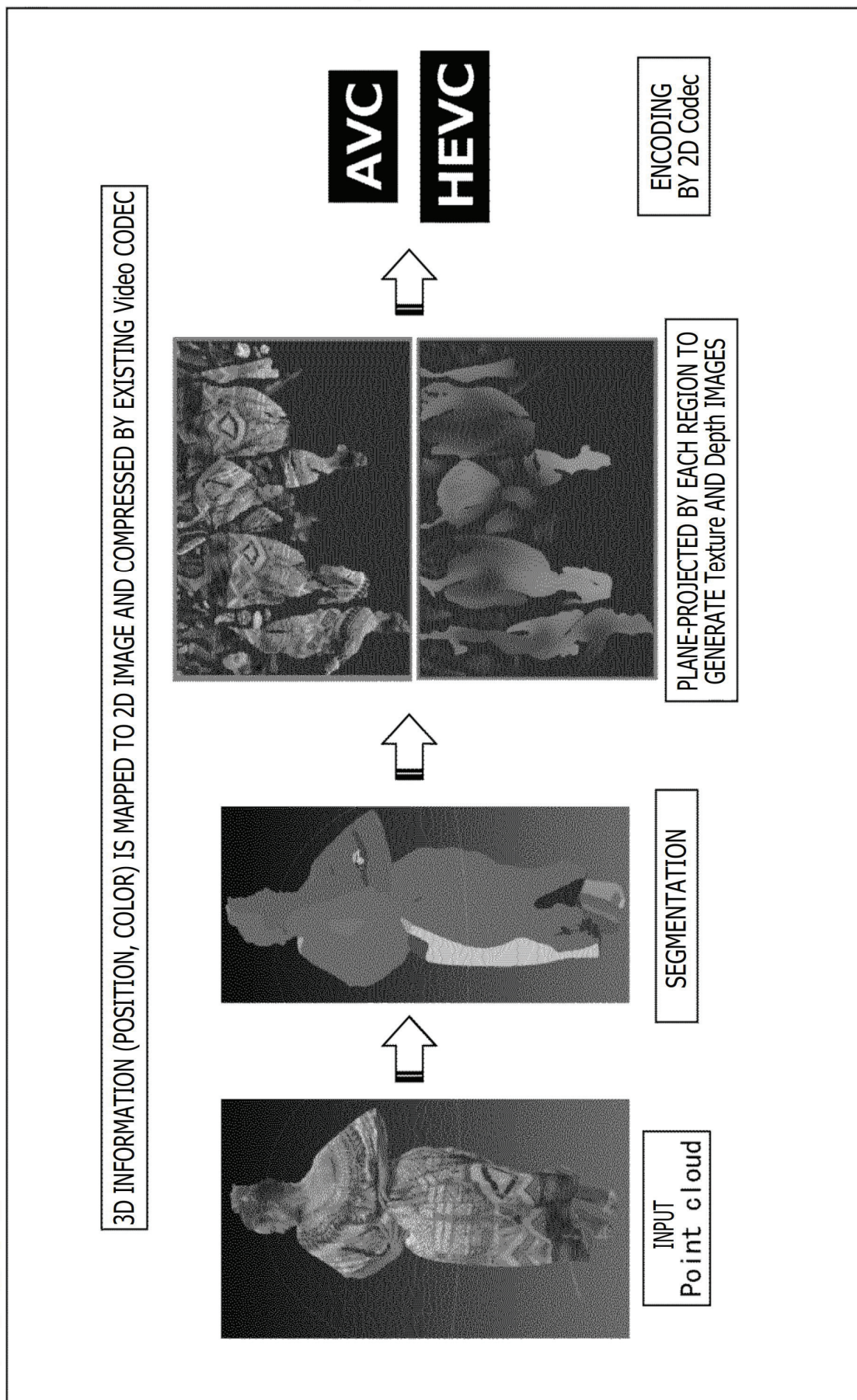


FIG. 3

	OVERVIEW	INFORMATION TO BE TRANSMITTED	EFFECTS
CONVENTIONAL EXAMPLE (TMC2)	Geometry REPRESENTATION BY 2 LAYERS Geometry IS LIMITED TO DEPTH IN Bounding box UNIFORM DEPTH CONTROL ON SCREEN IMAGE	PROJECTION CONTROL INFORMATION IN UNIT OF FRAME	—
EMBODIMENT 1	Geometry REPRESENTATION BY PLURAL LAYERS	Layer NUMBER OF PROJECTION PLANE AND CORRESPONDING Geometry IMAGE	FAITHFUL REPRESENTATION OF Point cloud HAVING THICKNESS AT OBJECT SURFACE
EMBODIMENT 2	ADDITION OF DEFINITION OF "ABSENT Point"	DEFINITION OF PIXEL VALUE OF Point TO BE DELETED BY DECODER (HOWEVER, THIS MAY BE DEFINED IN ADVANCE WITHOUT TRANSMITTING THE SAME)	FAITHFUL REPRESENTATION OF Sparse Point cloud
EMBODIMENT 3	DEPTH CONTROL BY EACH REGION	PARAMETER (TH) FOR CONTROL OF PROJECTION TO Layer IS TRANSMITTED BY EACH PATCH	PICTURE QUALITY CONTROL BY EACH REGION (IMPROVEMENT IN Geometry EFFICIENCY)

FIG. 4

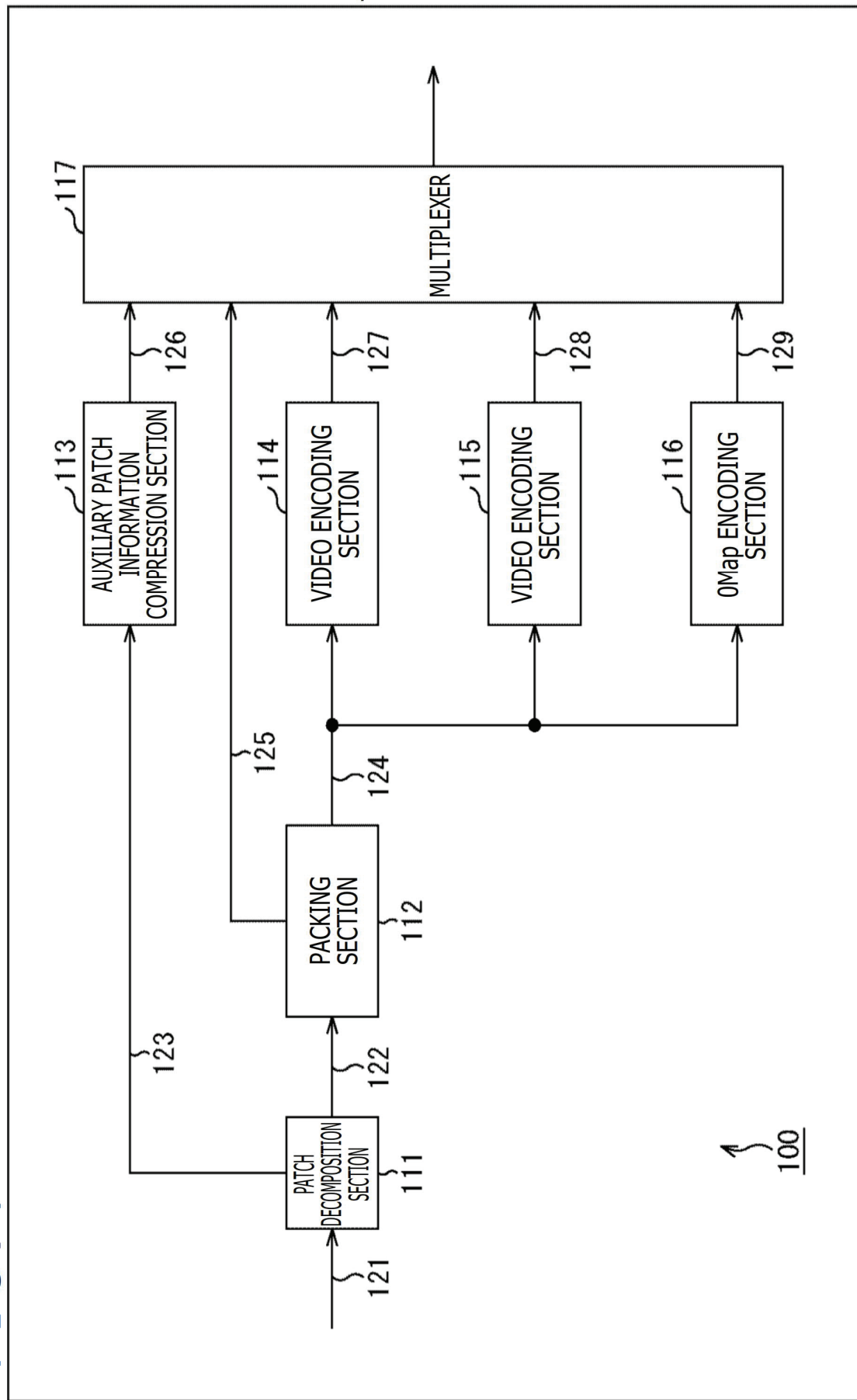


FIG. 5

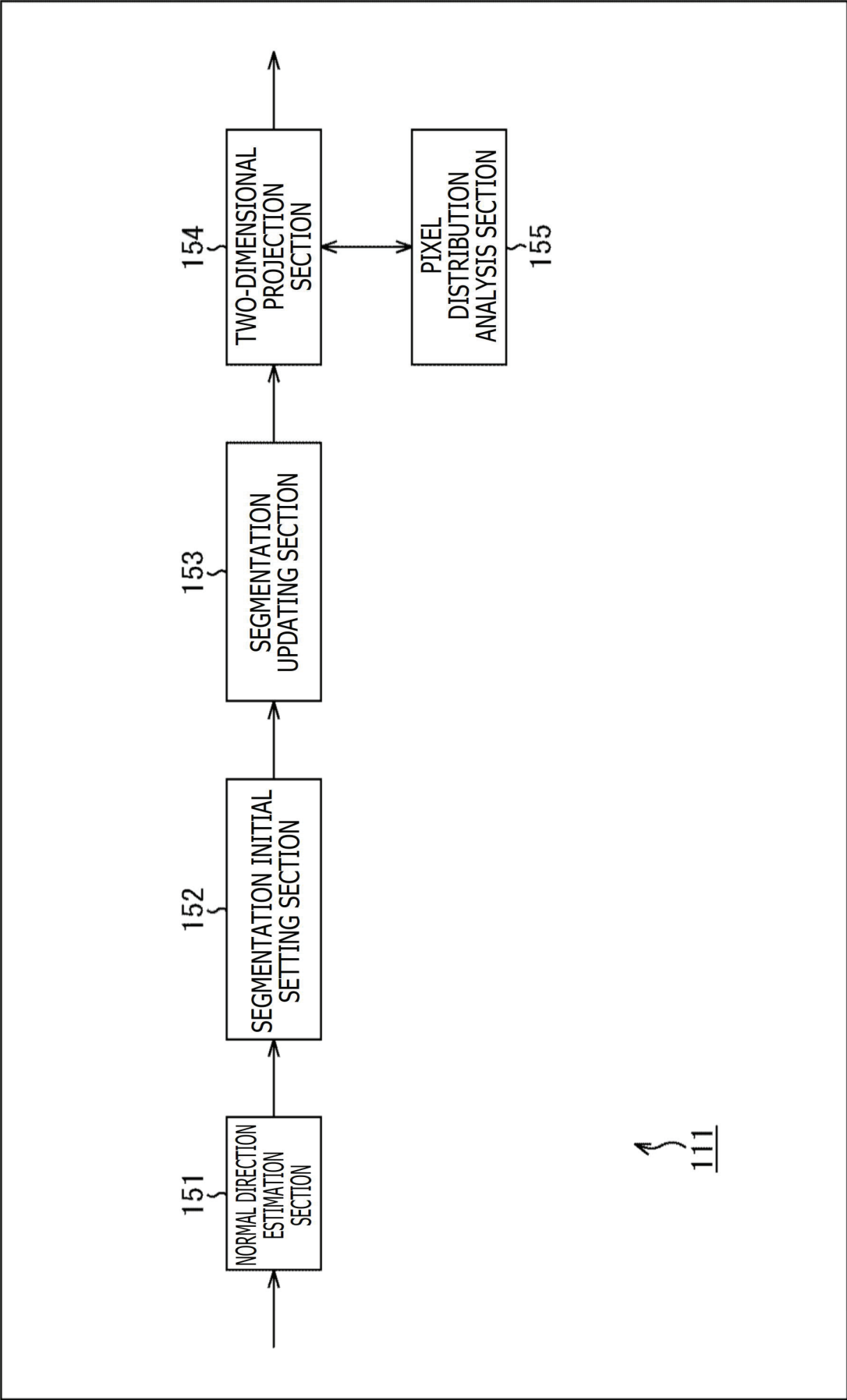


FIG. 6

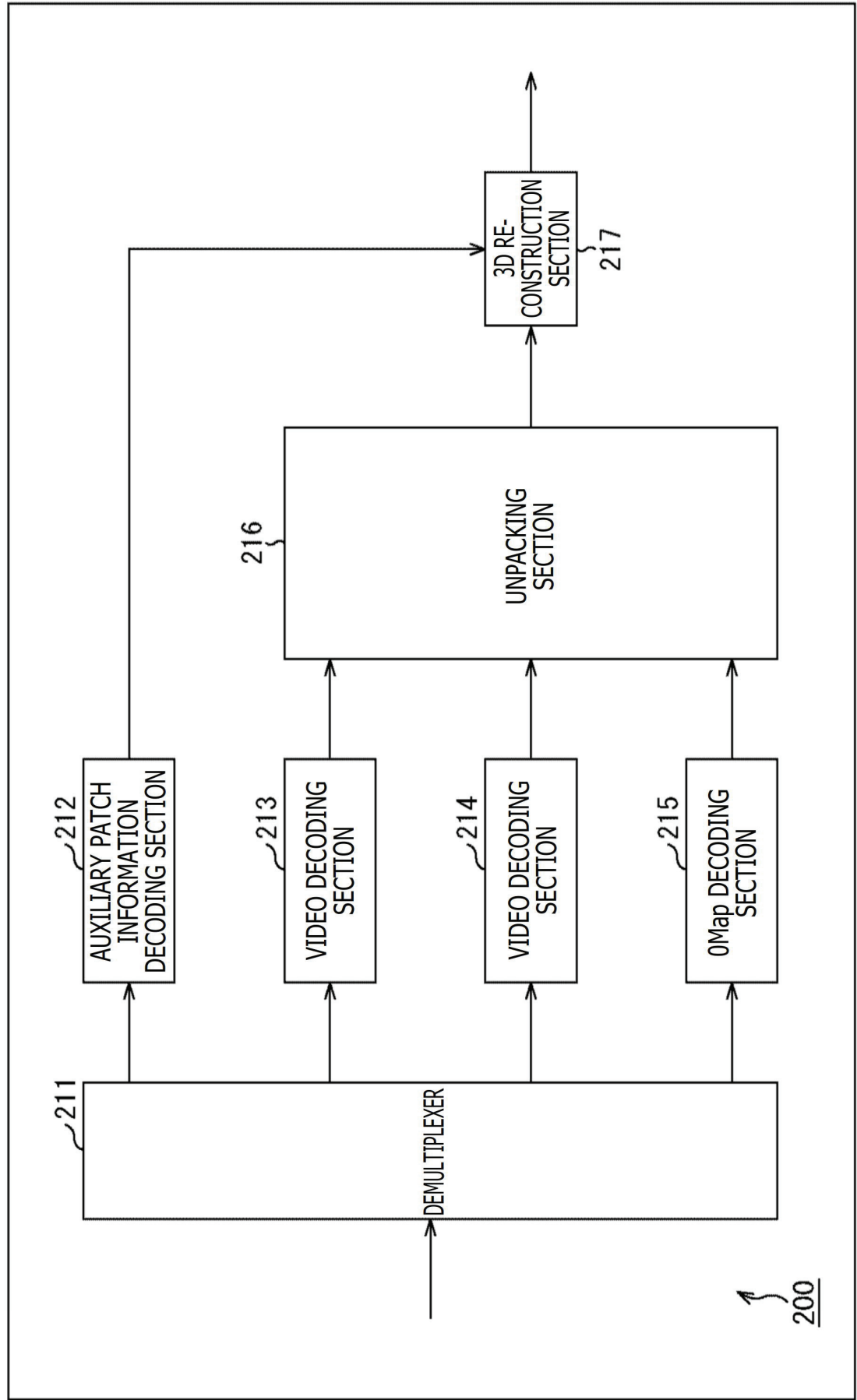


FIG. 7

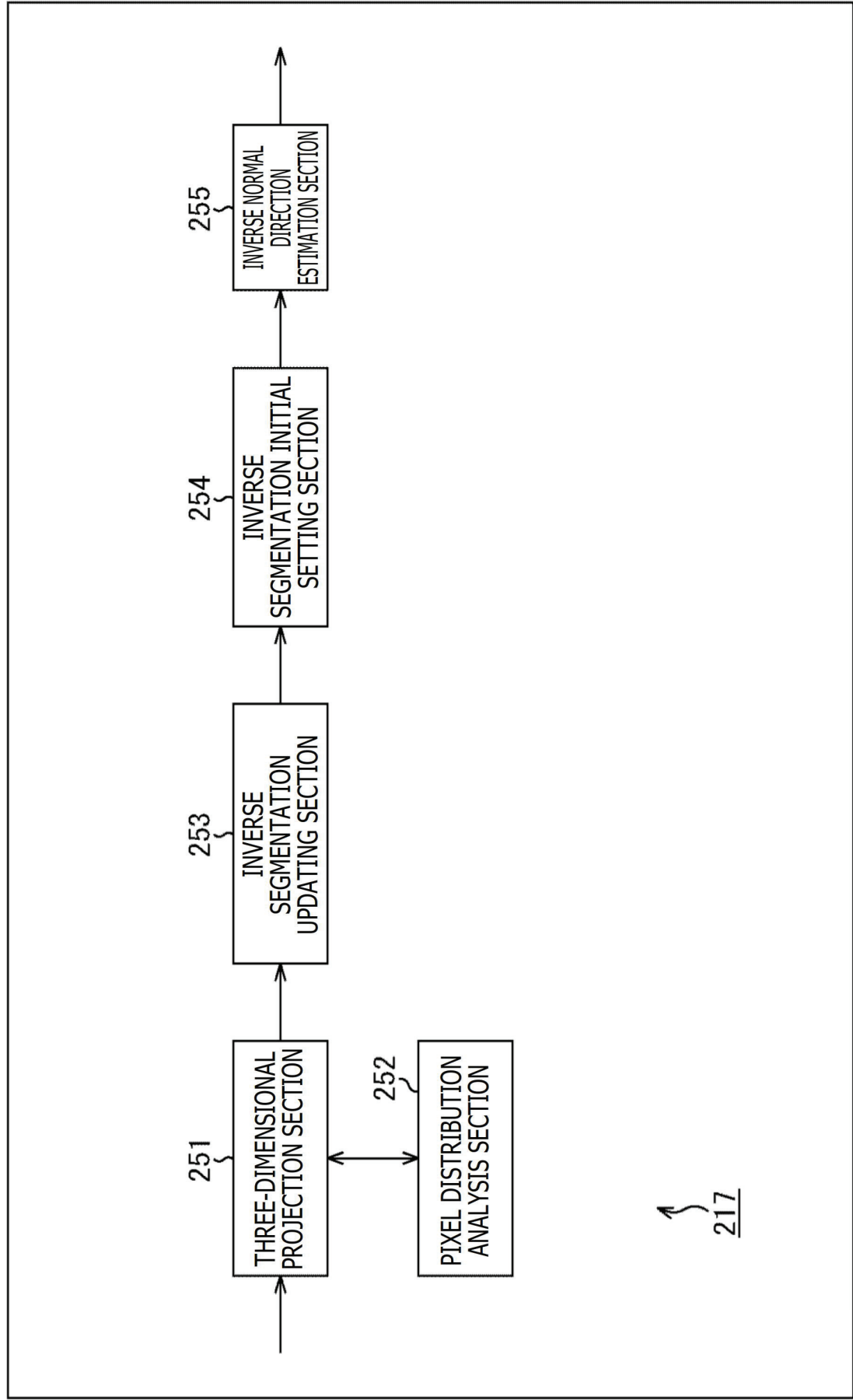


FIG. 8

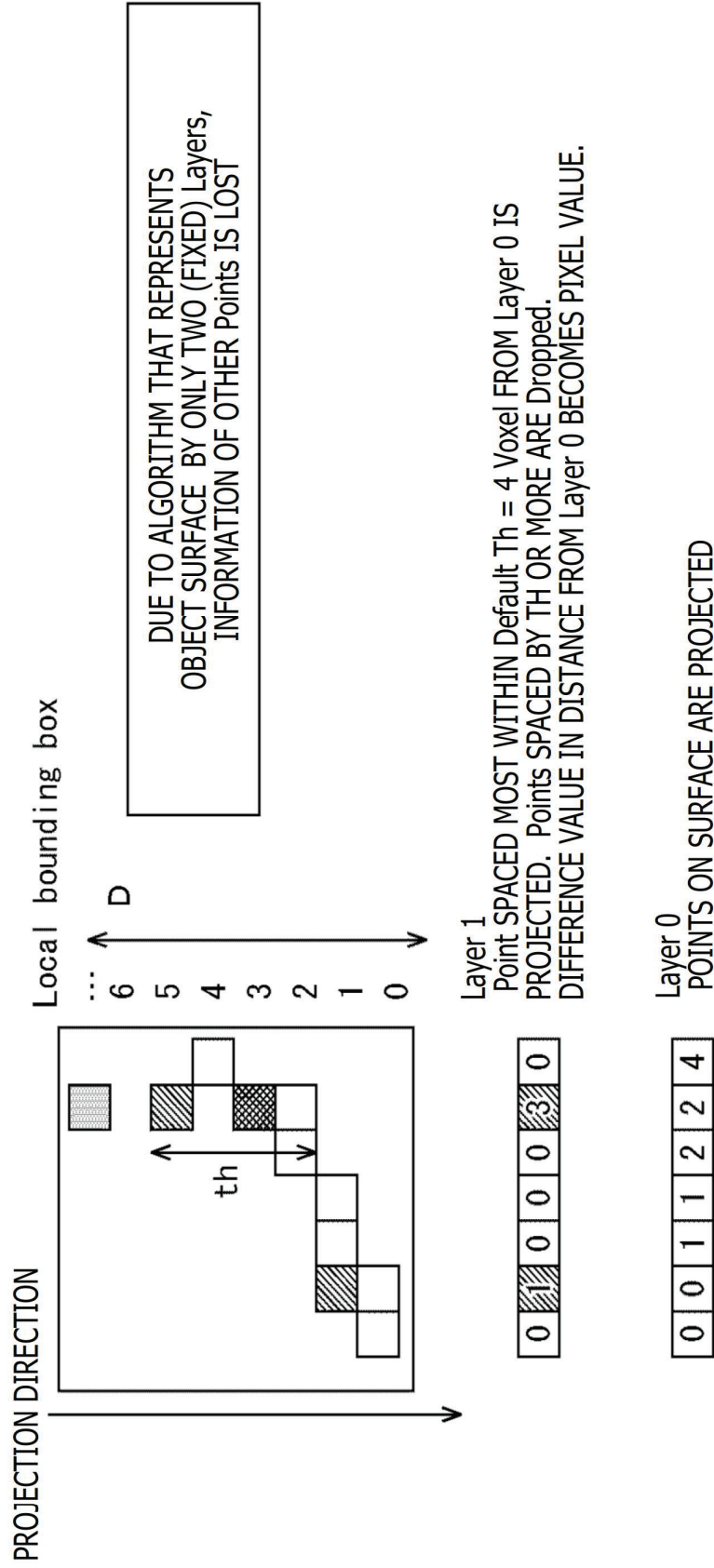


FIG. 9

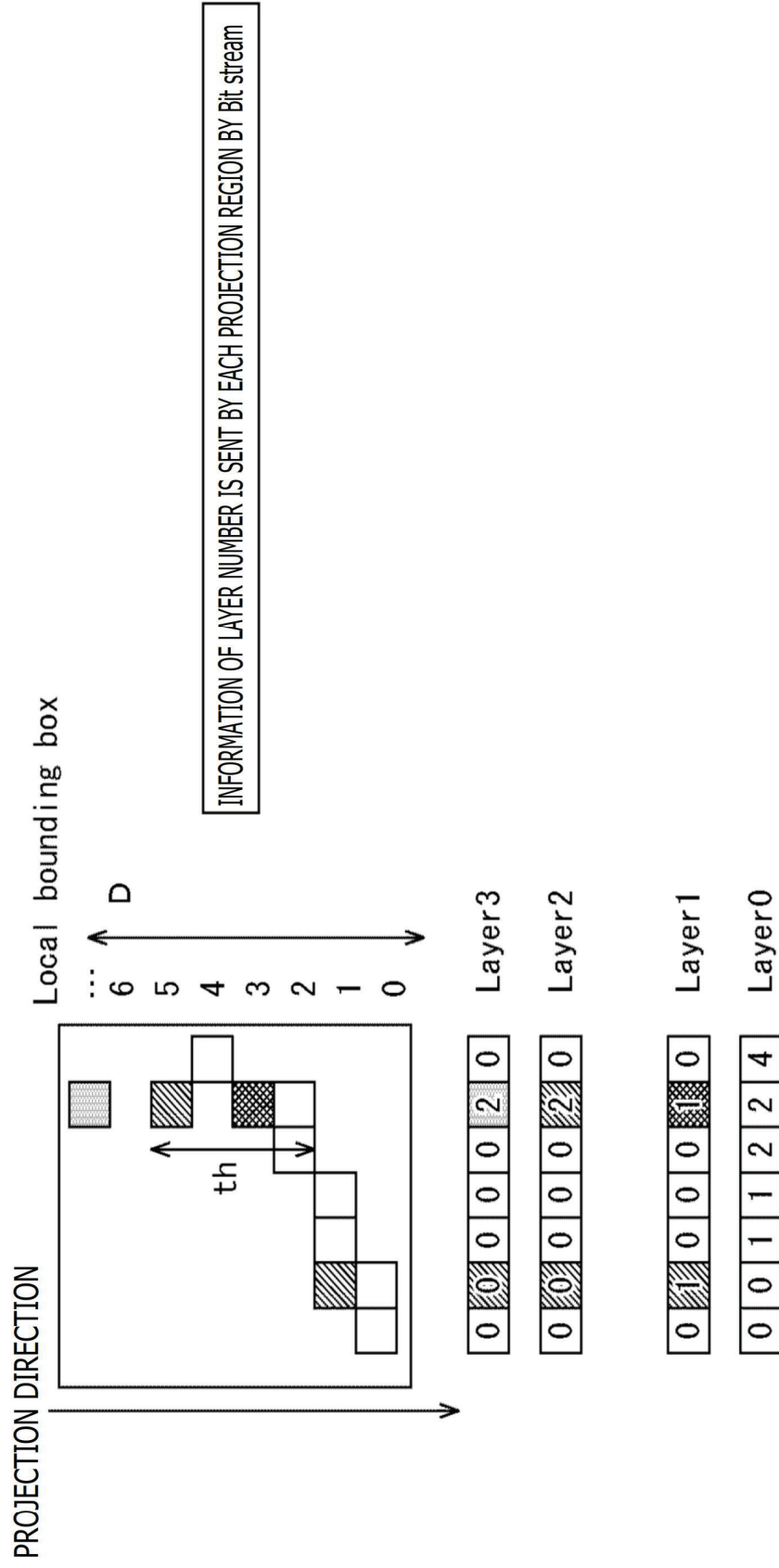


FIG. 10

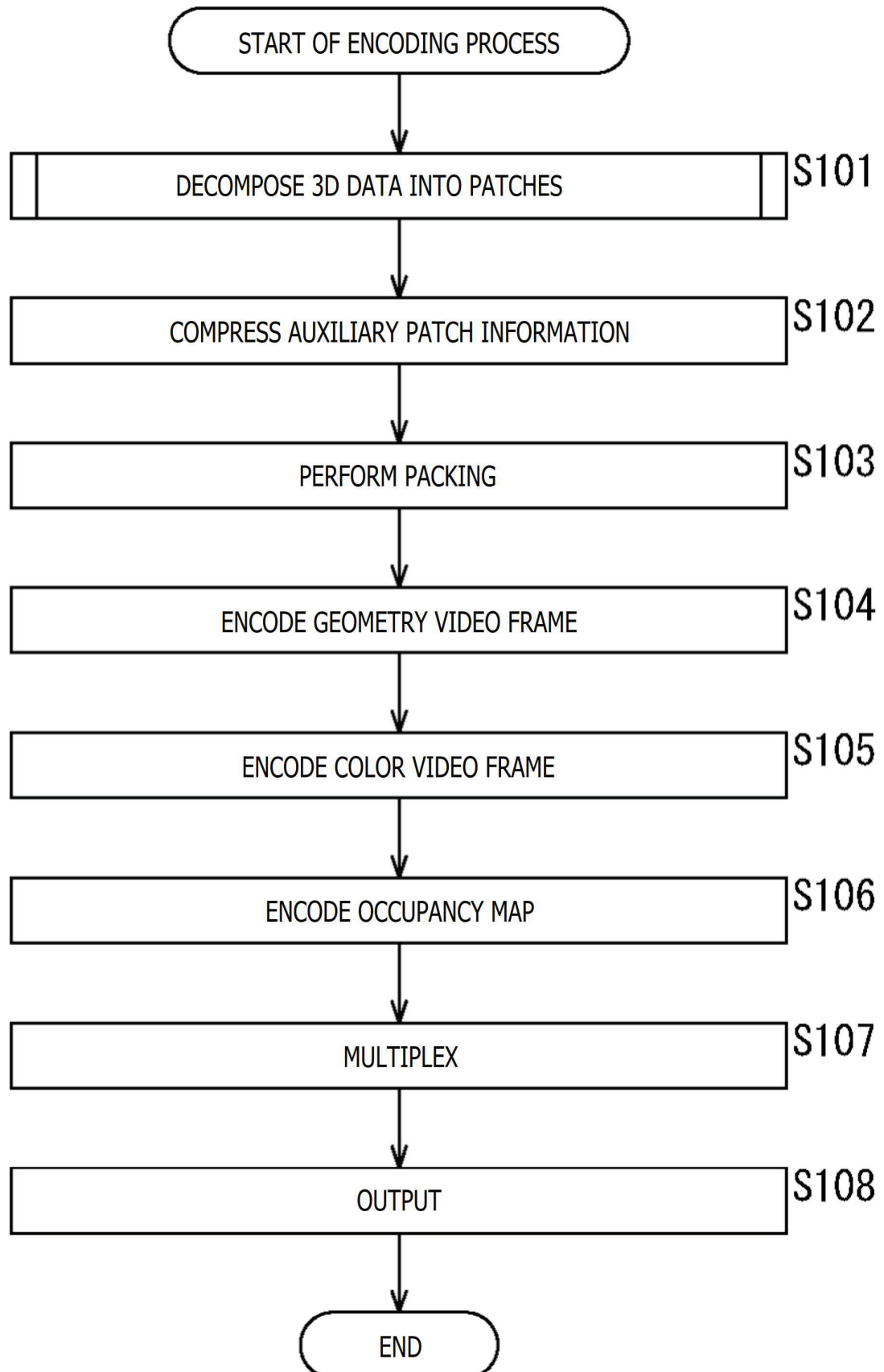


FIG. 11

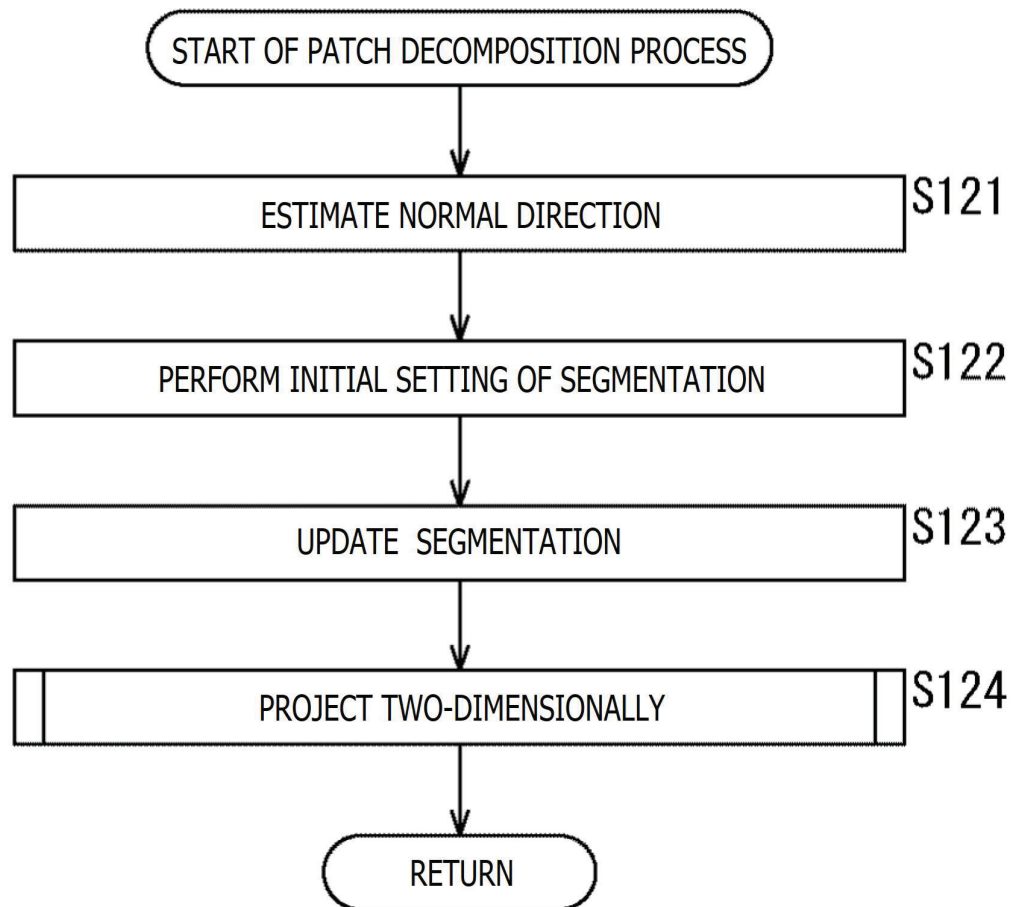


FIG. 12

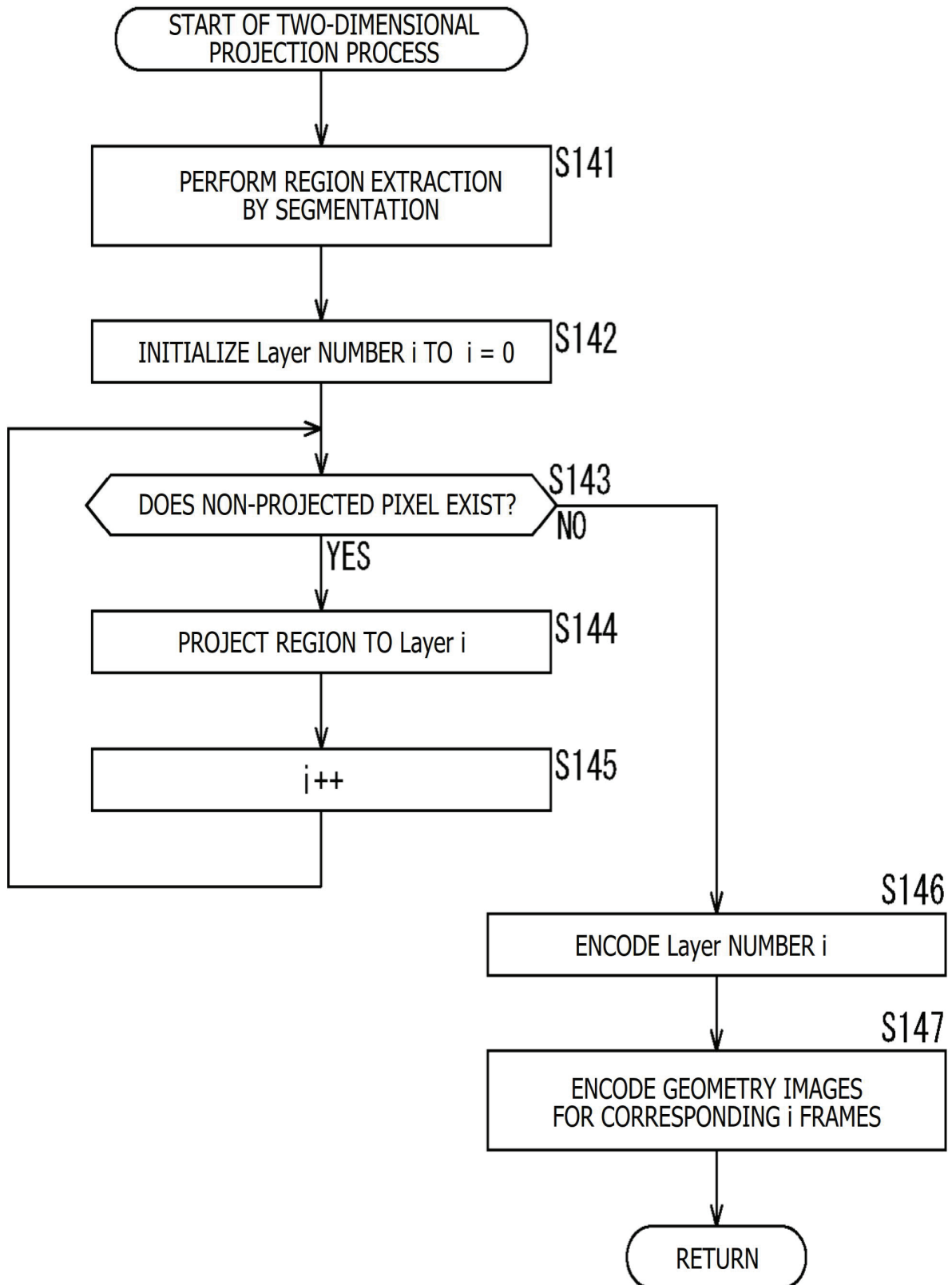


FIG. 13

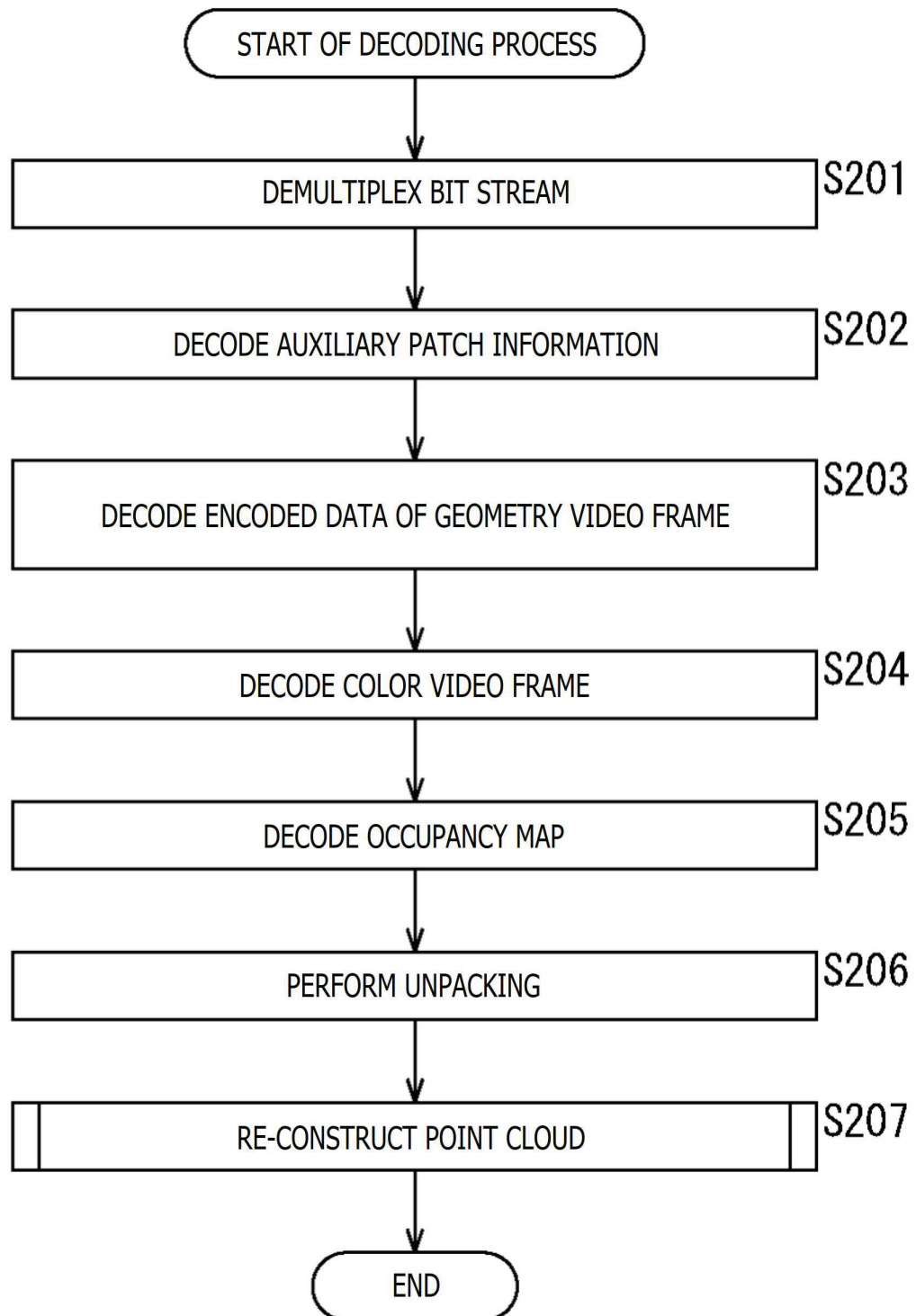


FIG. 14

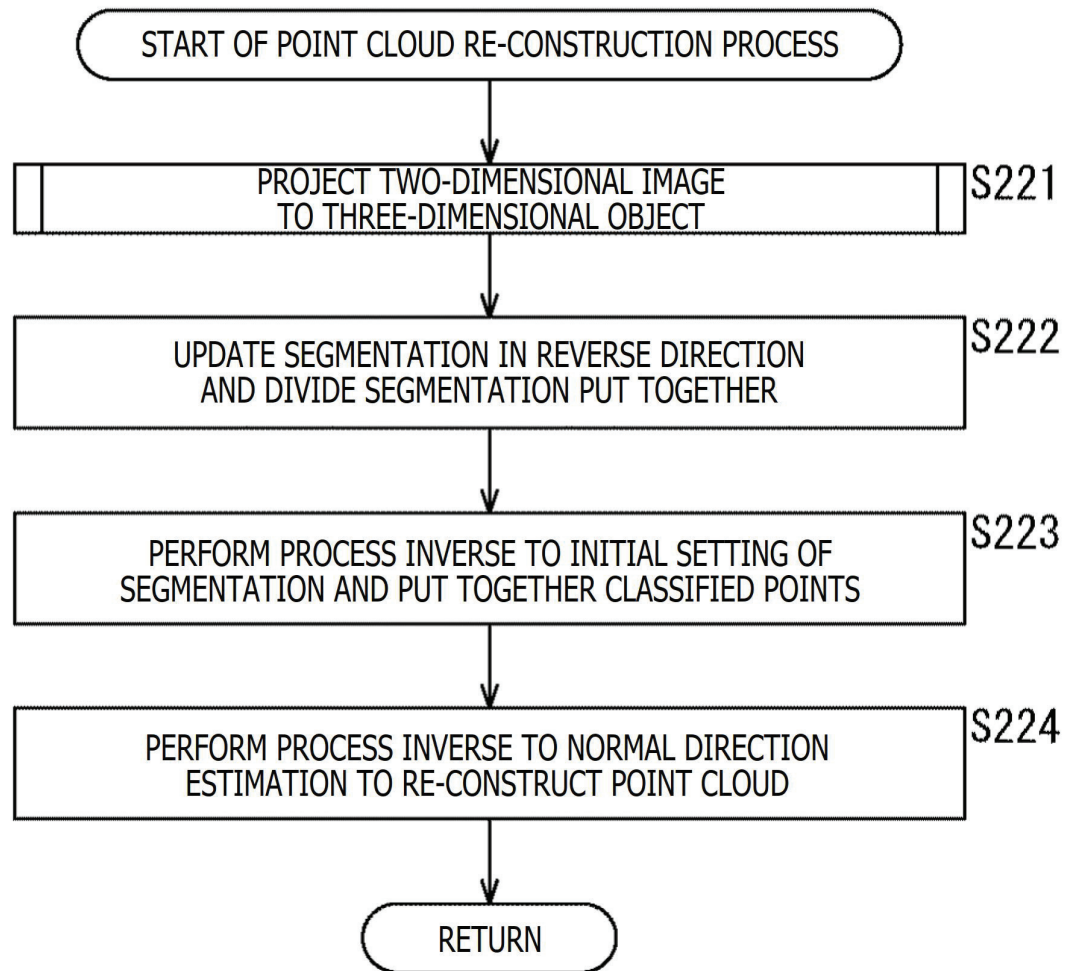


FIG. 15

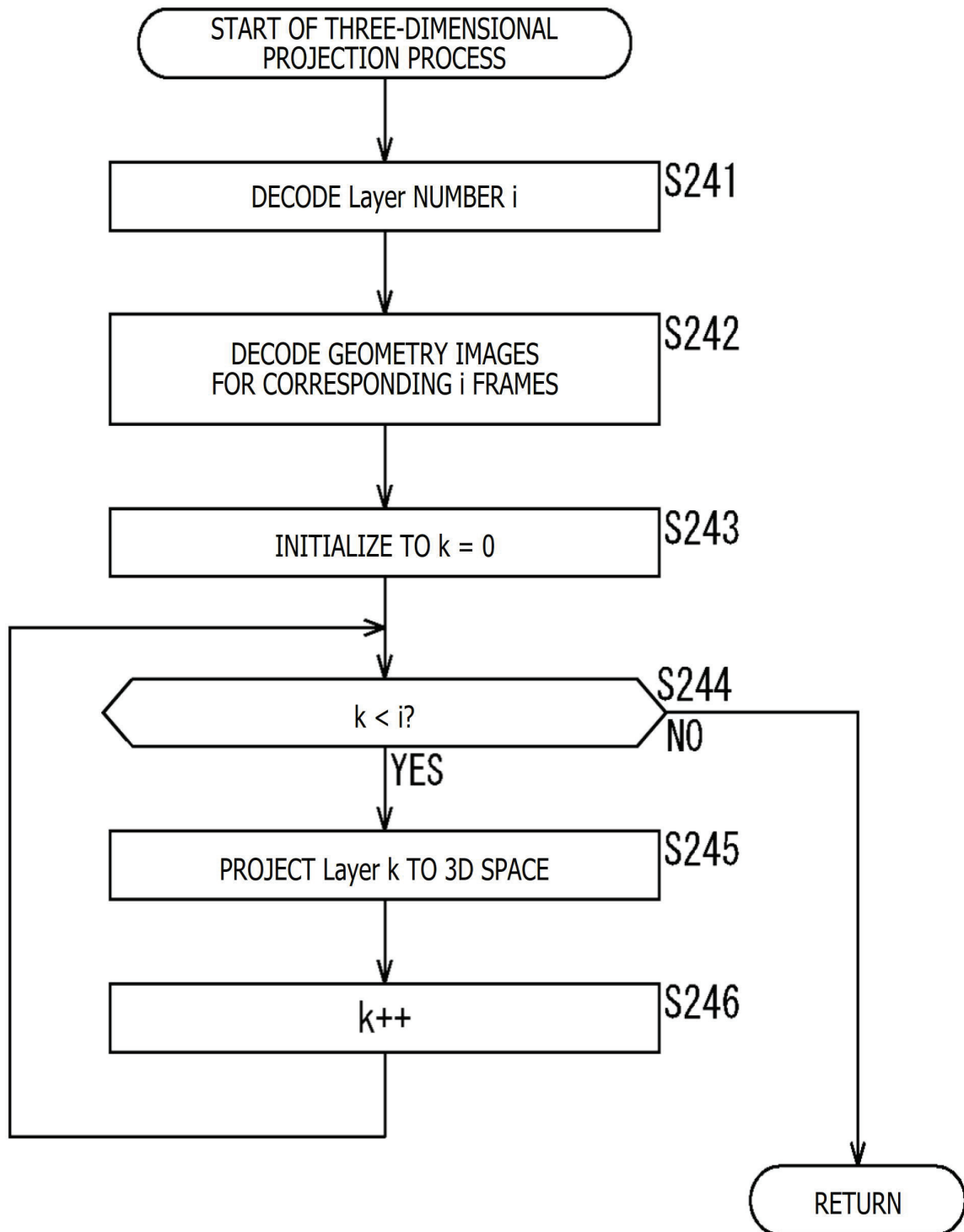


FIG. 16

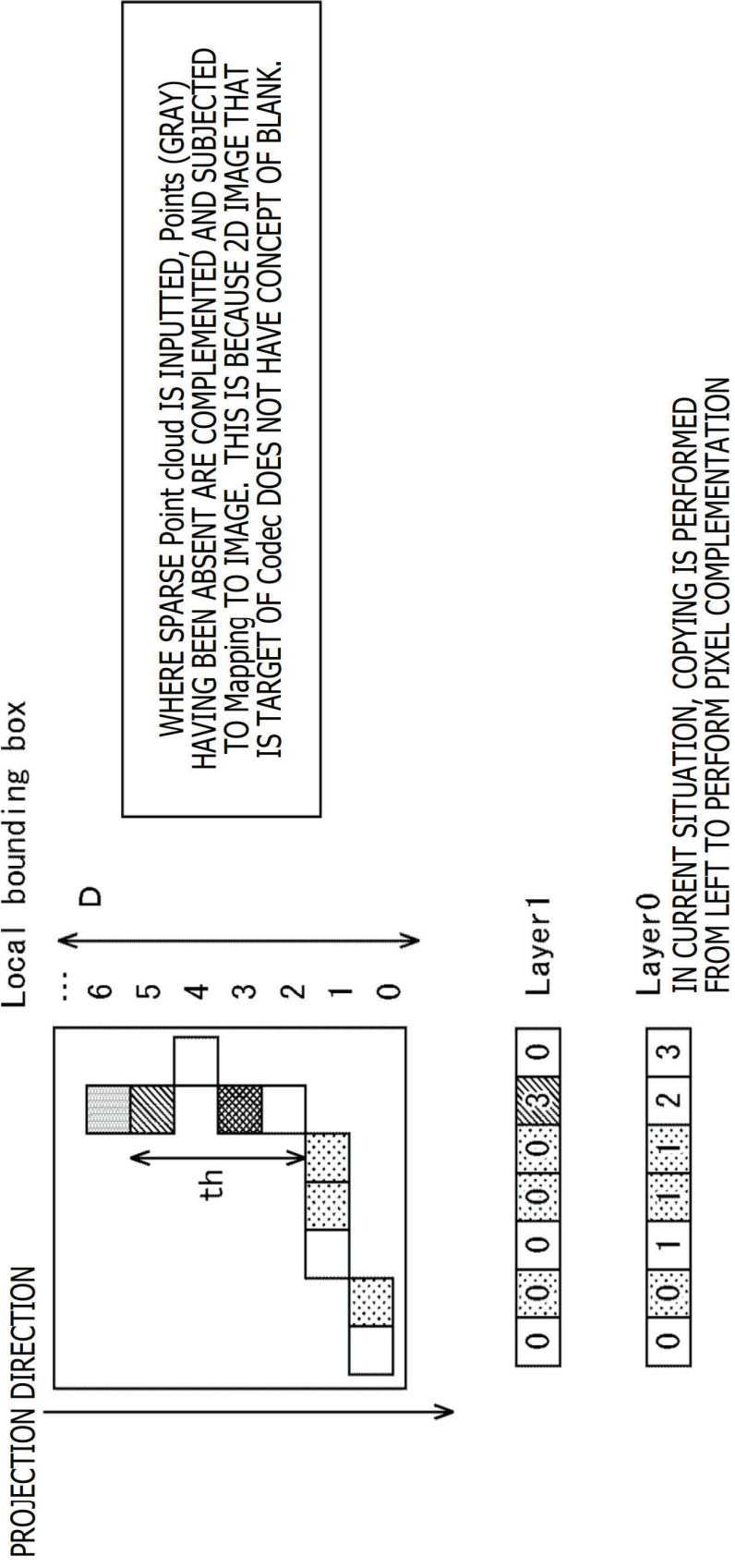
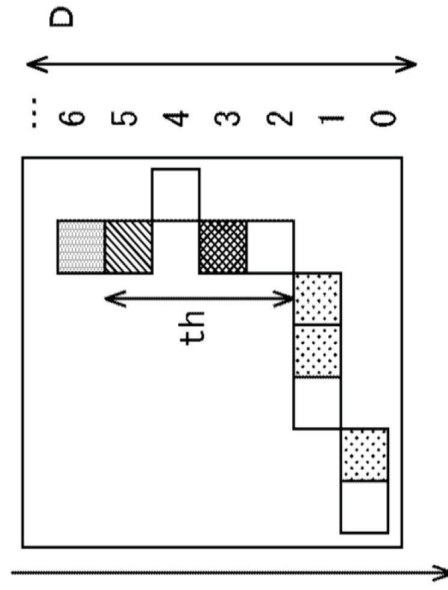


FIG. 17

Local bounding box



PRESCRIBED VALUE X IS USED AS PIXEL VALUE OF "ABSENT Point." AS VALUE OF X, FOR EXAMPLE, $X = 255$ (UPPER LIMIT OF 8-bit IMAGE) OR ANY VALUE SATISFYING $X > D$ (D: MAXIMUM VALUE OF DEPTH OF Bounding box) MAY BE USED FOR REPRESENTATION. IN FORMER CASE, DEFINITION OF CORRESPONDING RELATION IS TRANSMITTED IN Bit stream. IN LATTER CASE, DETERMINATION PROCESS IS PERFORMED BY Decoder.

0	0	1	0	0	3	0
Layer1						

0	X	1	X	X	2	3
Layer0						

FIG. 18

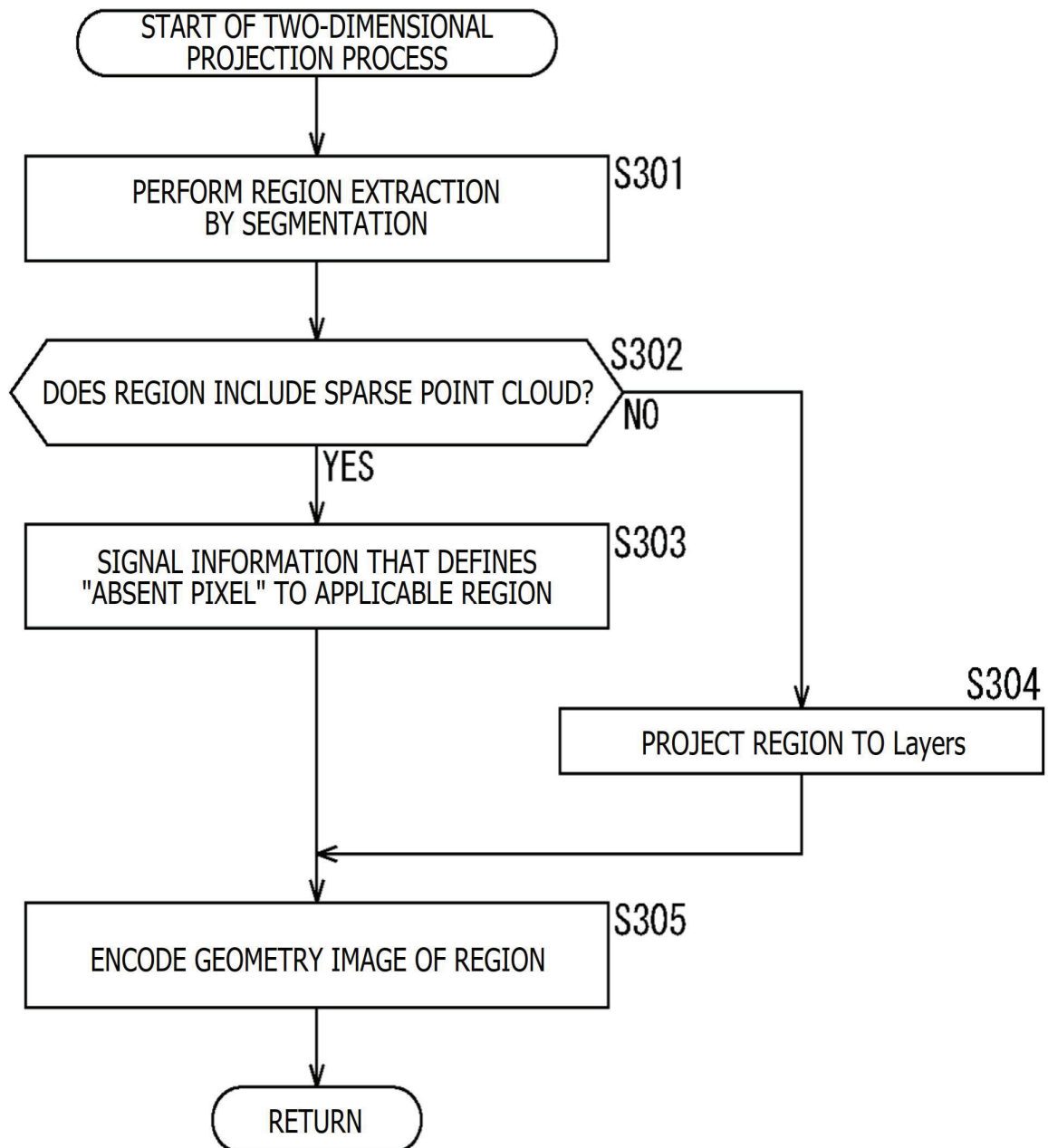


FIG. 19

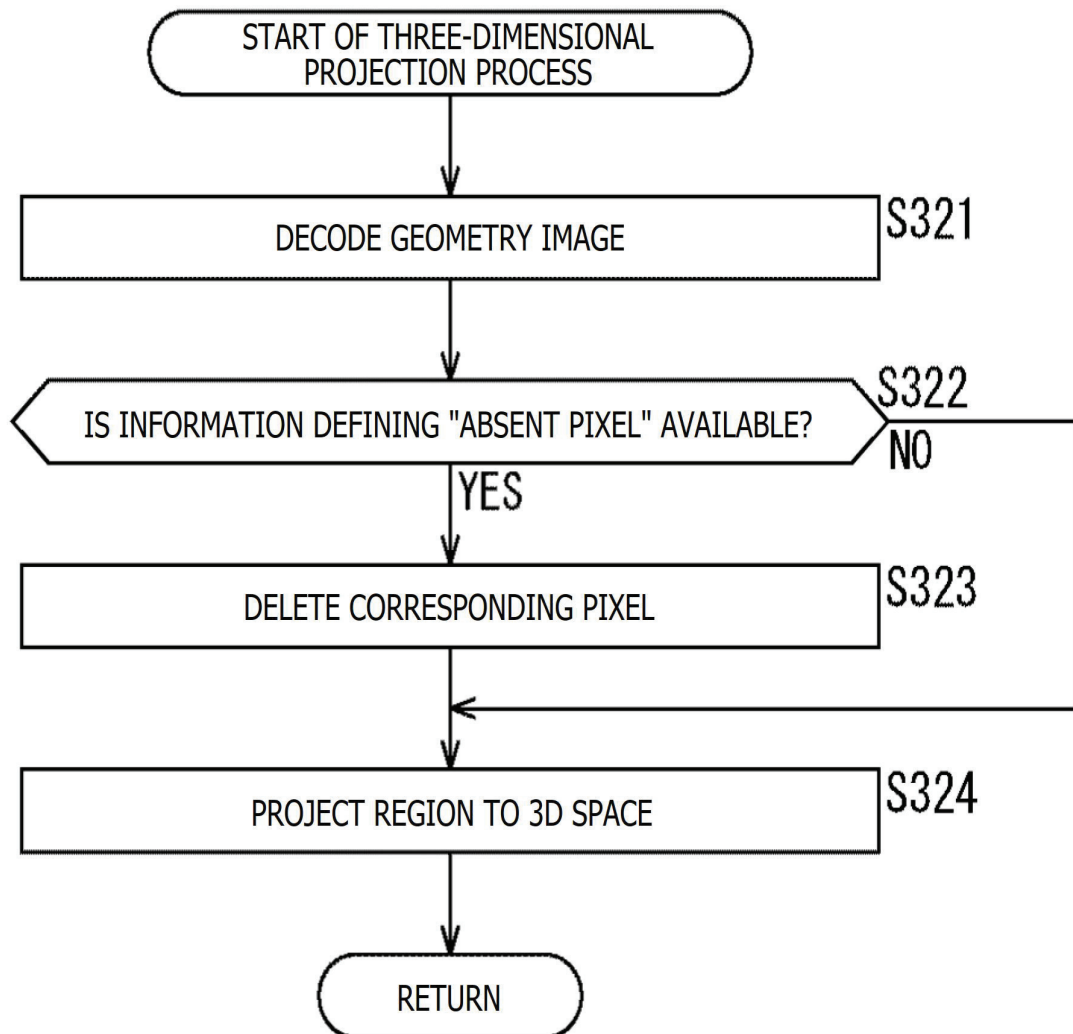


FIG. 20

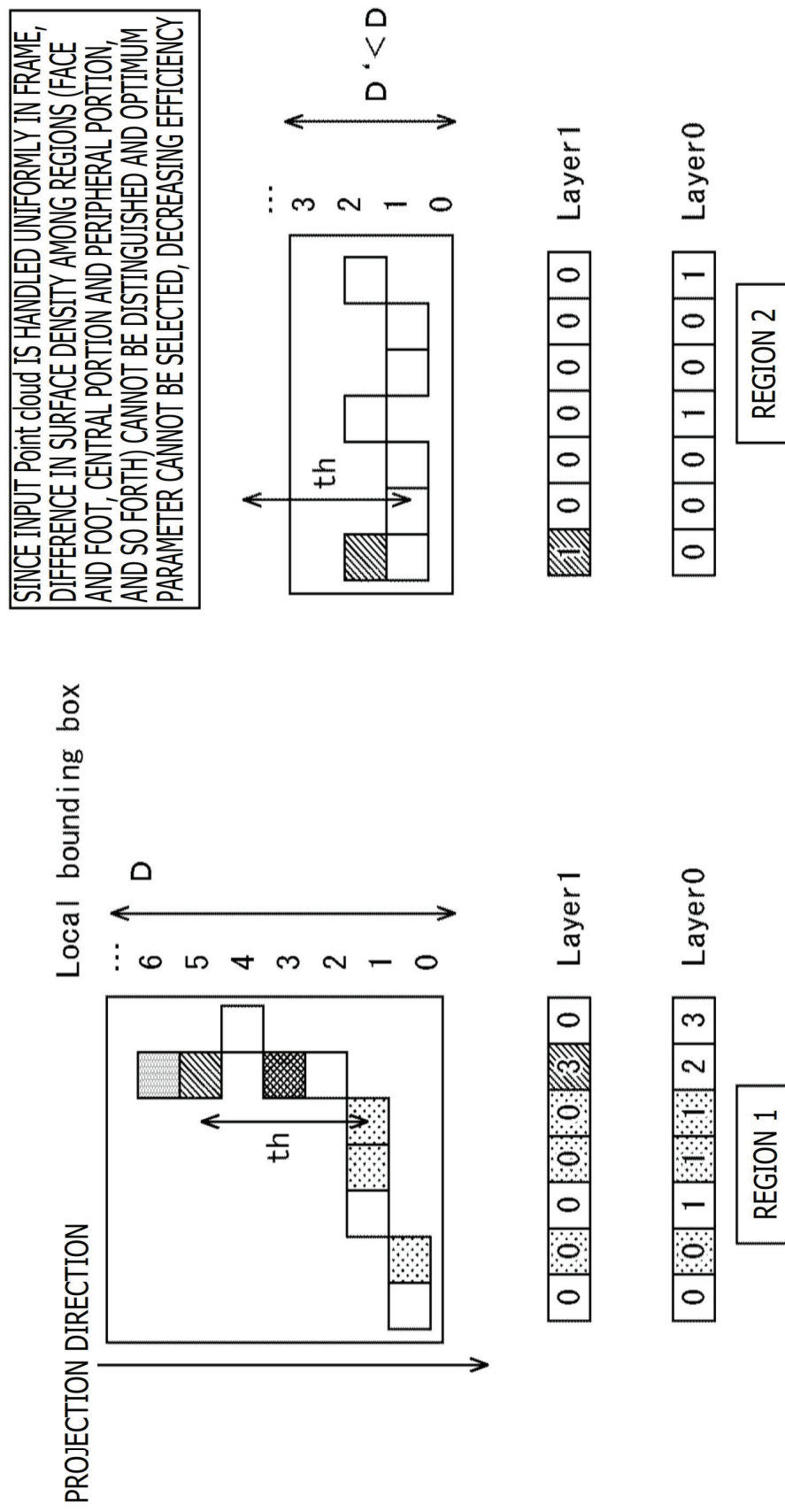


FIG. 21

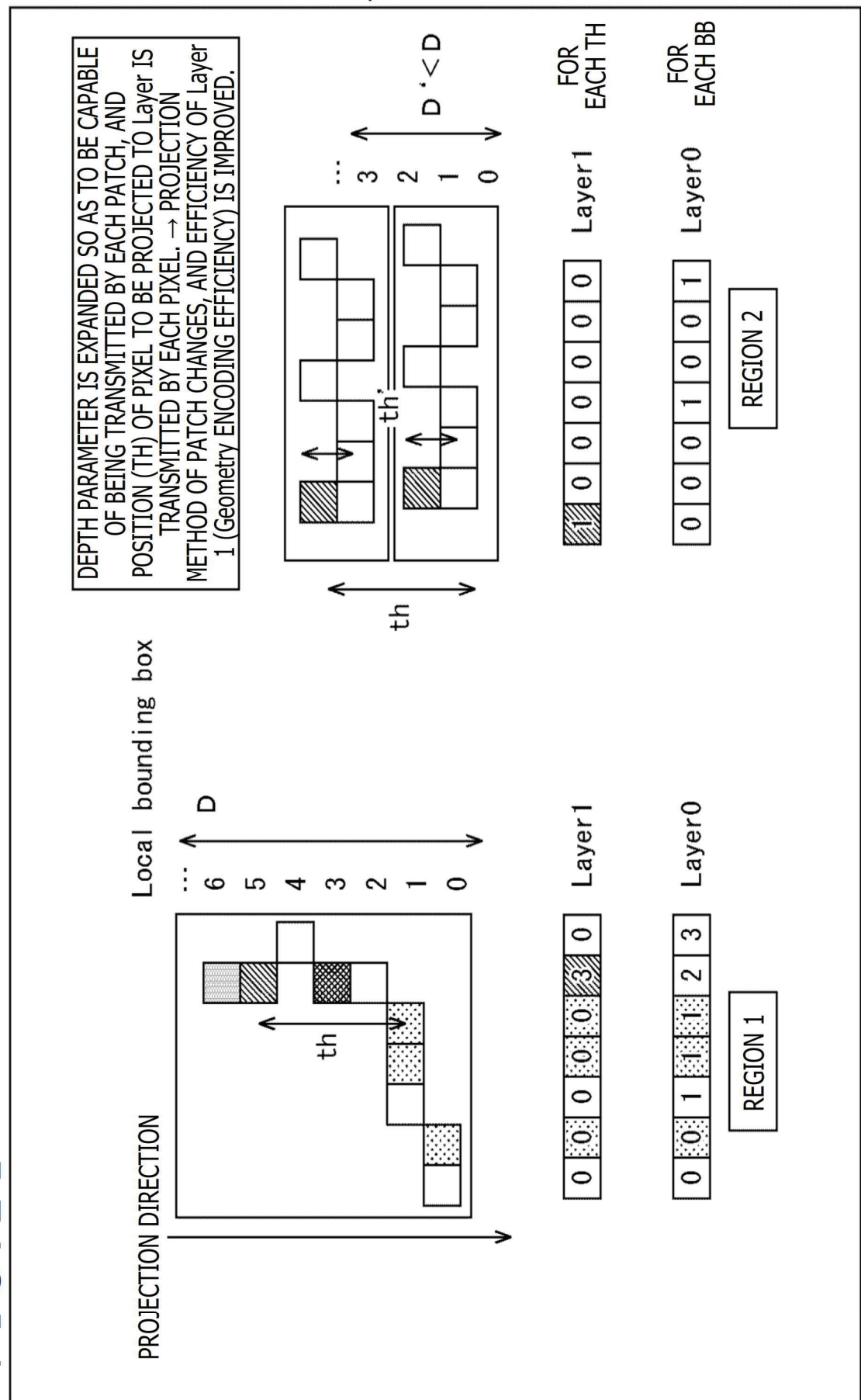


FIG. 22

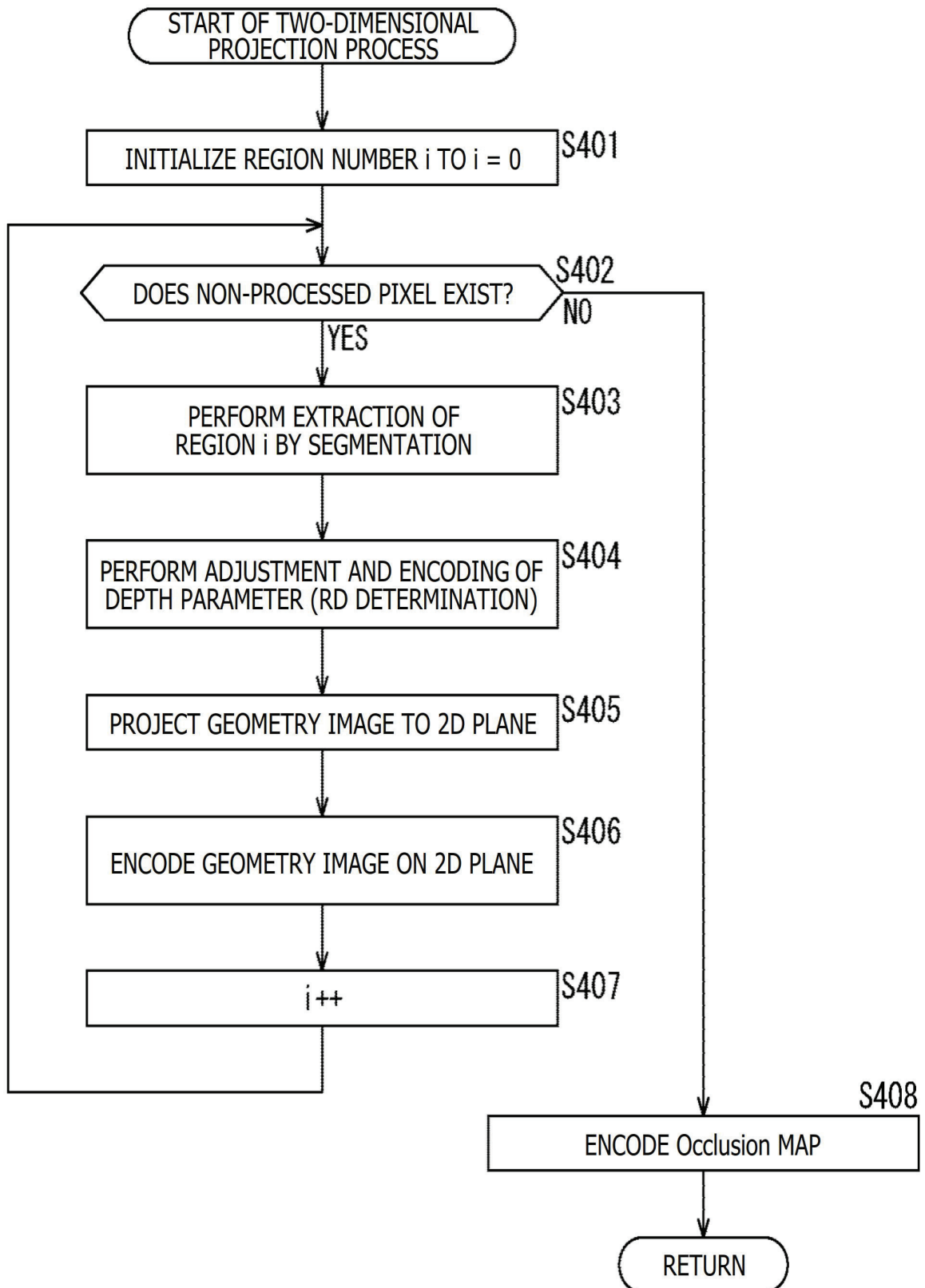


FIG. 23

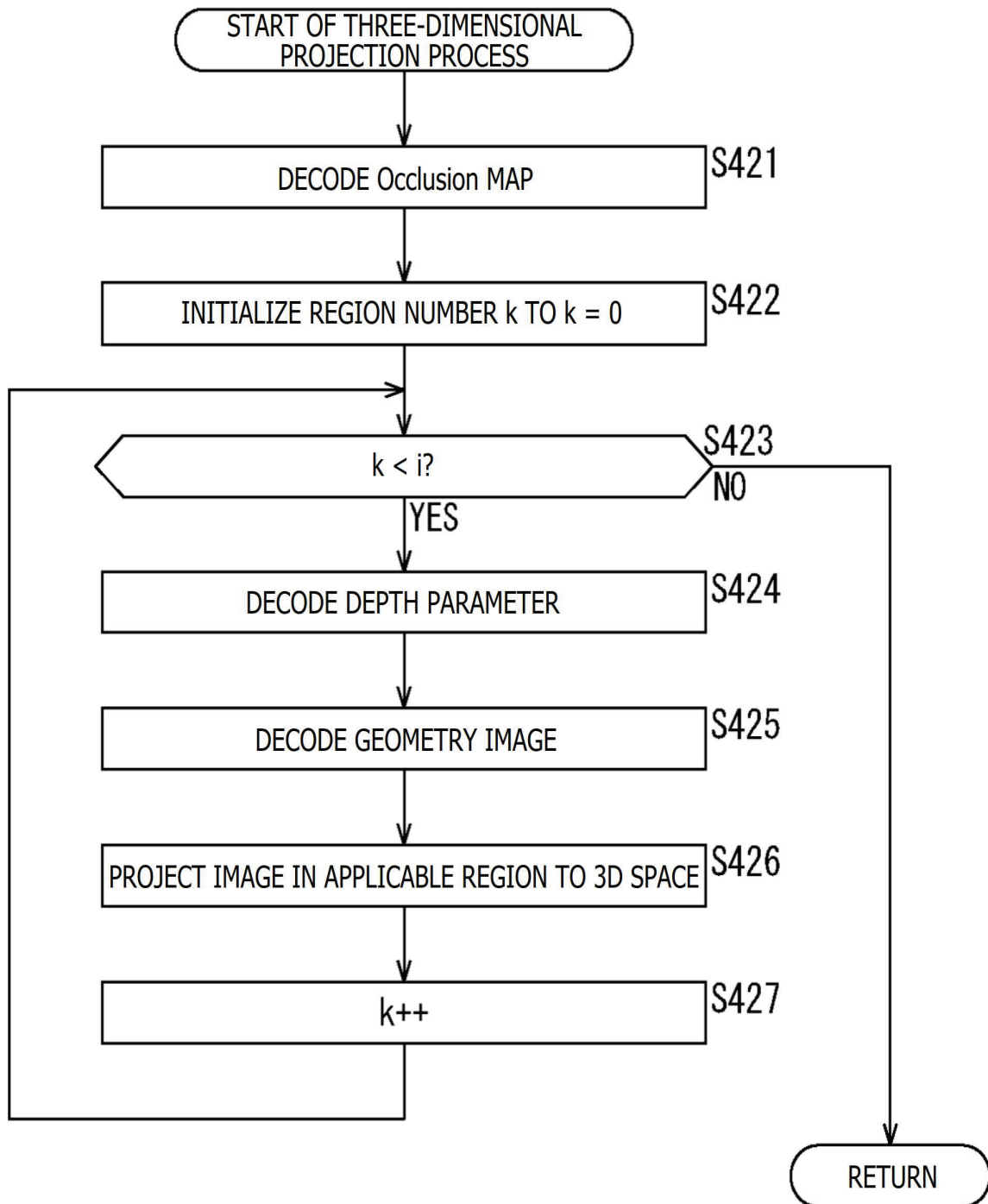


FIG. 24

