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Sullivan et al.

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(54) **2D TO 3D IMAGE CONVERSION**

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(51) **Int. Cl.**
G06T 15/10 (2006.01)

(52) **U.S. Cl.** **345/427**; 345/419; 345/426; 345/581; 345/646; 345/647; 352/57

(58) **Field of Classification Search** 345/419, 345/426, 427, 581, 646, 647
See application file for complete search history.

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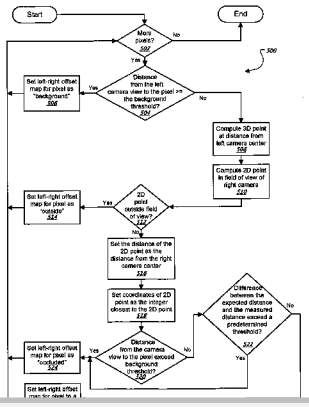
(57) **ABSTRACT**

A method of creating a complementary stereoscopic image pair is described. The method includes receiving a first 2D image comprising image data, where the first 2D image is captured from a first camera location. The method also includes projecting at least a portion of the first 2D image onto computer-generated geometry. The image data has depth values associated with the computer-generated geometry. The system includes rendering, using the computer-generated geometry and a second camera location that differs from the first camera location, a second 2-D image that is stereoscopically complementary to the first 2-D image, and infilling image data that is absent from the second 2-D image.

38 Claims, 13 Drawing Sheets



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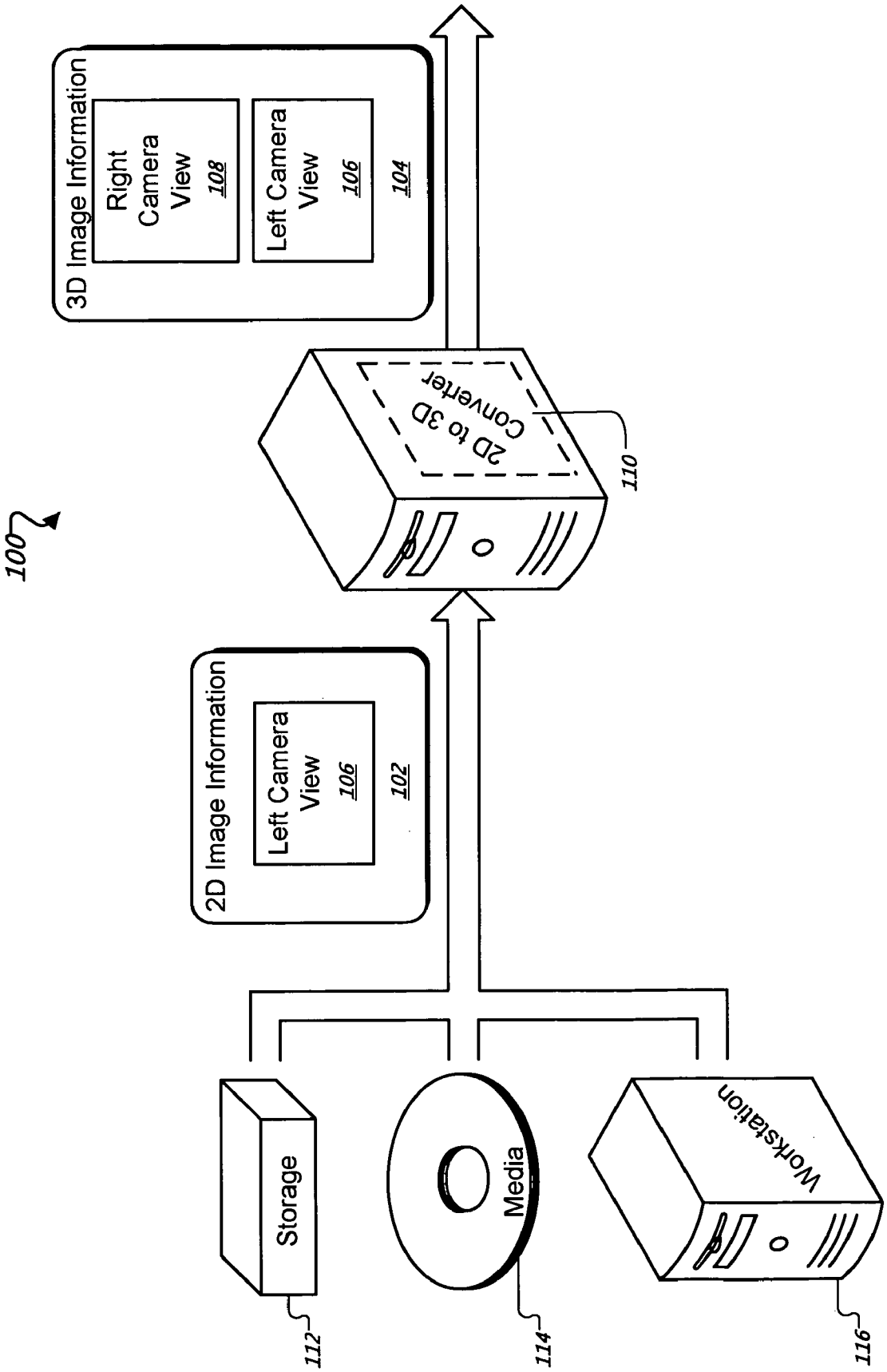

FIG. 1

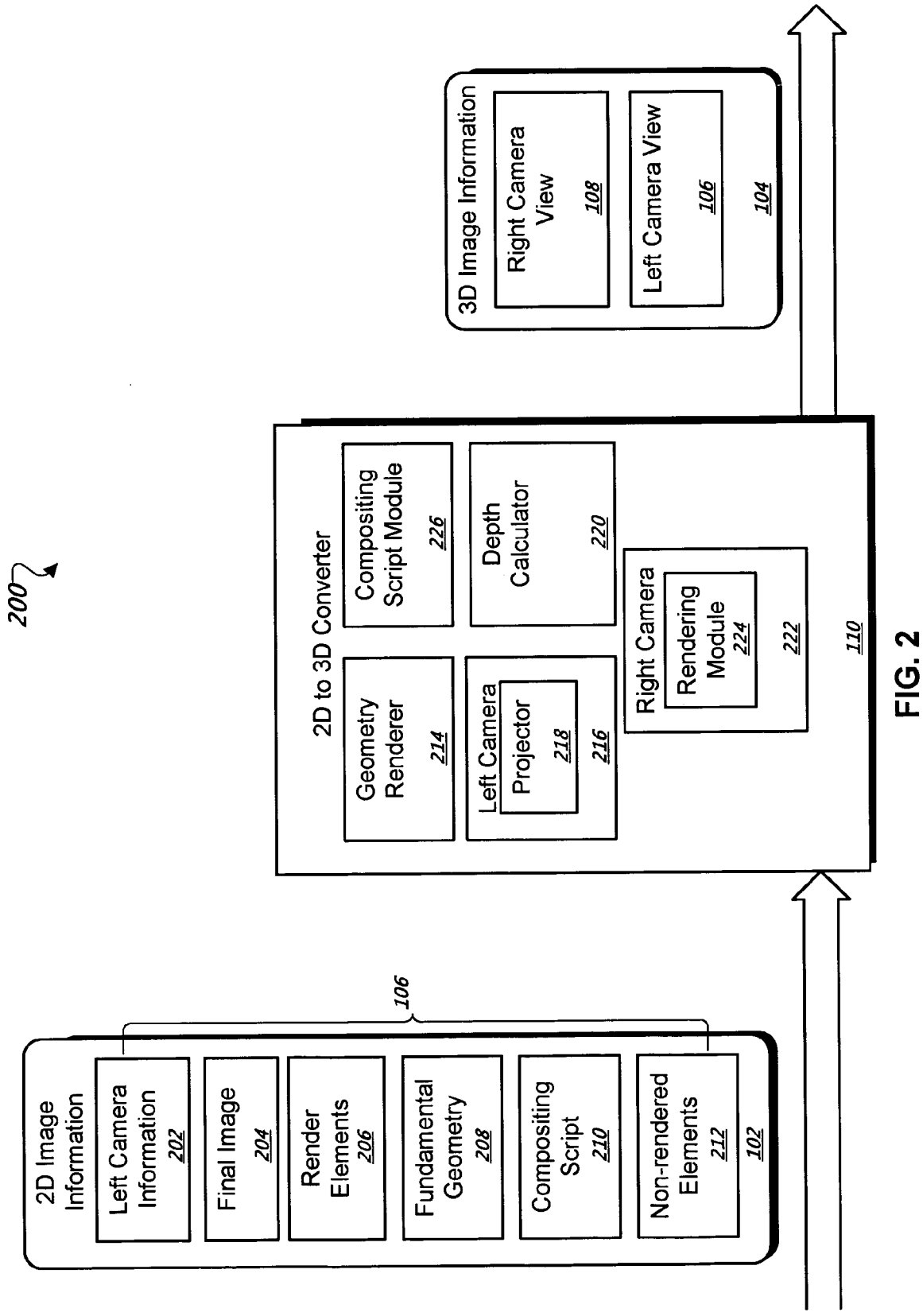

FIG. 2

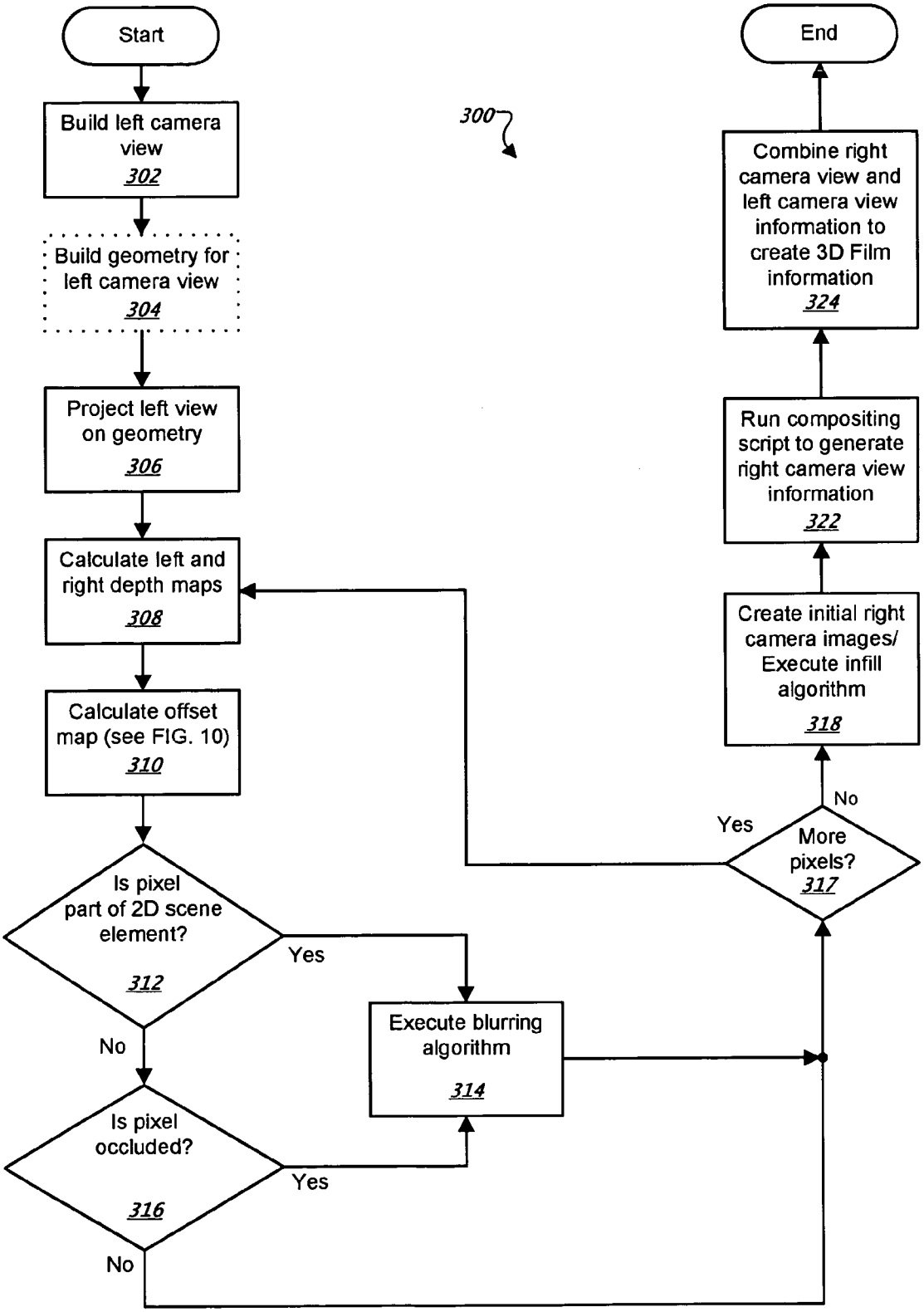

FIG. 3

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