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(54) **SYSTEMS AND METHODS FOR PROCESSING AND DISPLAYING INTRA-ORAL MEASUREMENT DATA**

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(57) **ABSTRACT**

Provided are a system and method for generating and displaying intra-oral measurement data. A measurement field of view of an intra-oral scanning device is directed at a first region of an object scene to acquire image data related to the first region. The intra-oral scanning device is moved from the first region along a path proximal to one or more surfaces of the object scene to a second region of the object scene. The intra-oral scanning device acquires image data corresponding to the object scene along the path. A set of 3D data is presented in a display. 3D data are generated from the image data acquired for the first region of the object scene to the second region of the object scene. Presented in a window of the display is a current video image of acquired image data of the object scene in the measurement field of view. The current video image overlays a respective portion of a graphical representation of accumulated data of the set of 3D data.
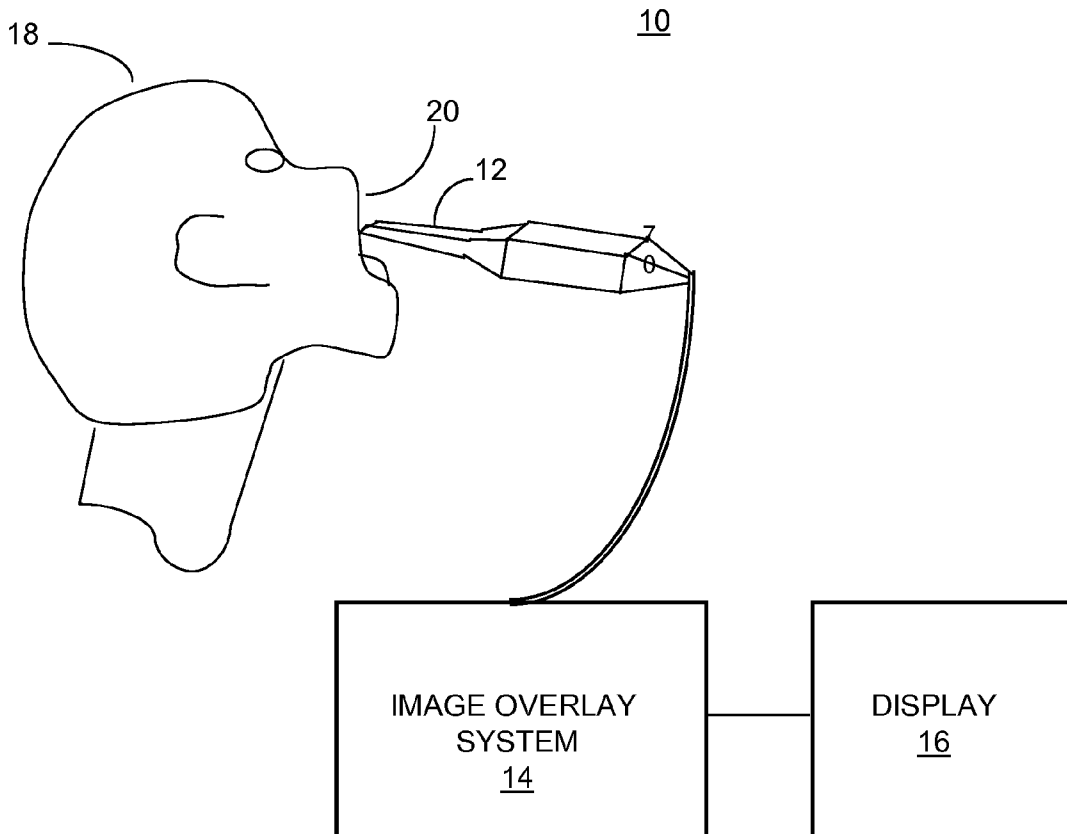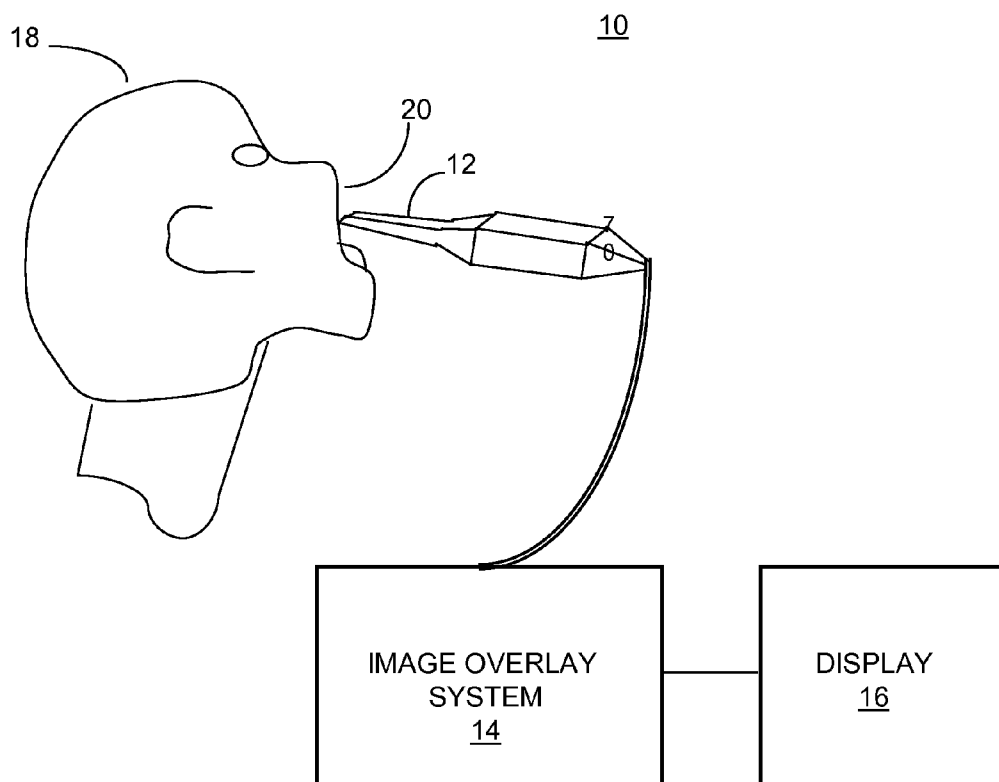
**FIG. 1**

*FIG. 2*

100

105 — POSITION SCANNING DEVICE AT FIRST REGION OF DENTAL ARCH

↓

110 — MOVE SCANNING DEVICE TO A SECOND REGION OF DENTAL ARCH

↓

115 — ACQUIRE IMAGE DATA FROM FIRST REGION TO SECOND REGION

↓

120 — GENERATE SET OF 3D DATA FROM ACQUIRED IMAGE DATA

↓

125 — DISPLAY GRAPHICAL REPRESENTATION OF 3D DATA

↓

130 — OVERLAY "LIVE" VIDEO OF ACQUIRED IMAGE DATA ON GRAPHICAL REPRESENTATION OF 3D DATA

*FIG. 3*

FIG. 4A

# DOCKET ALARM
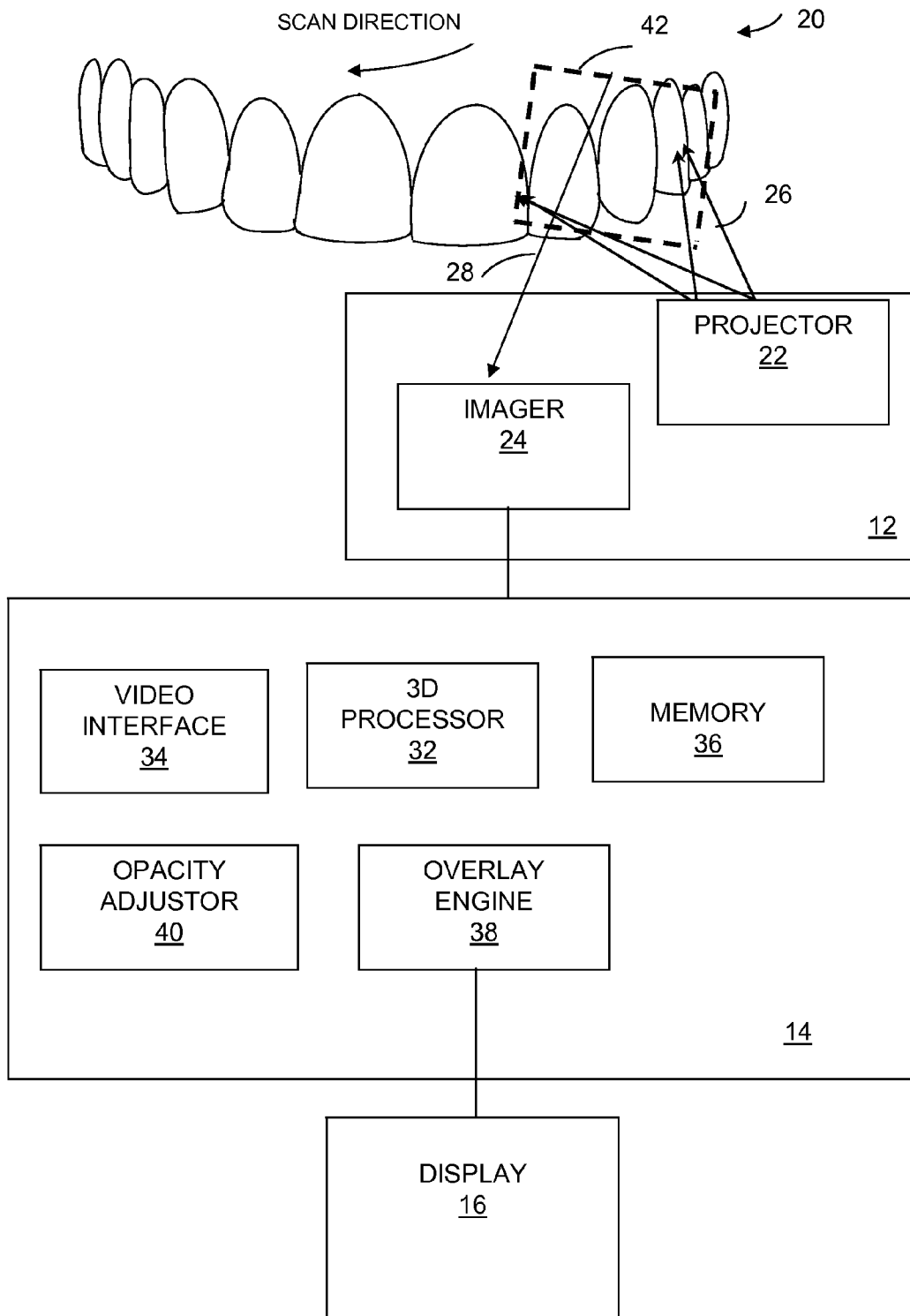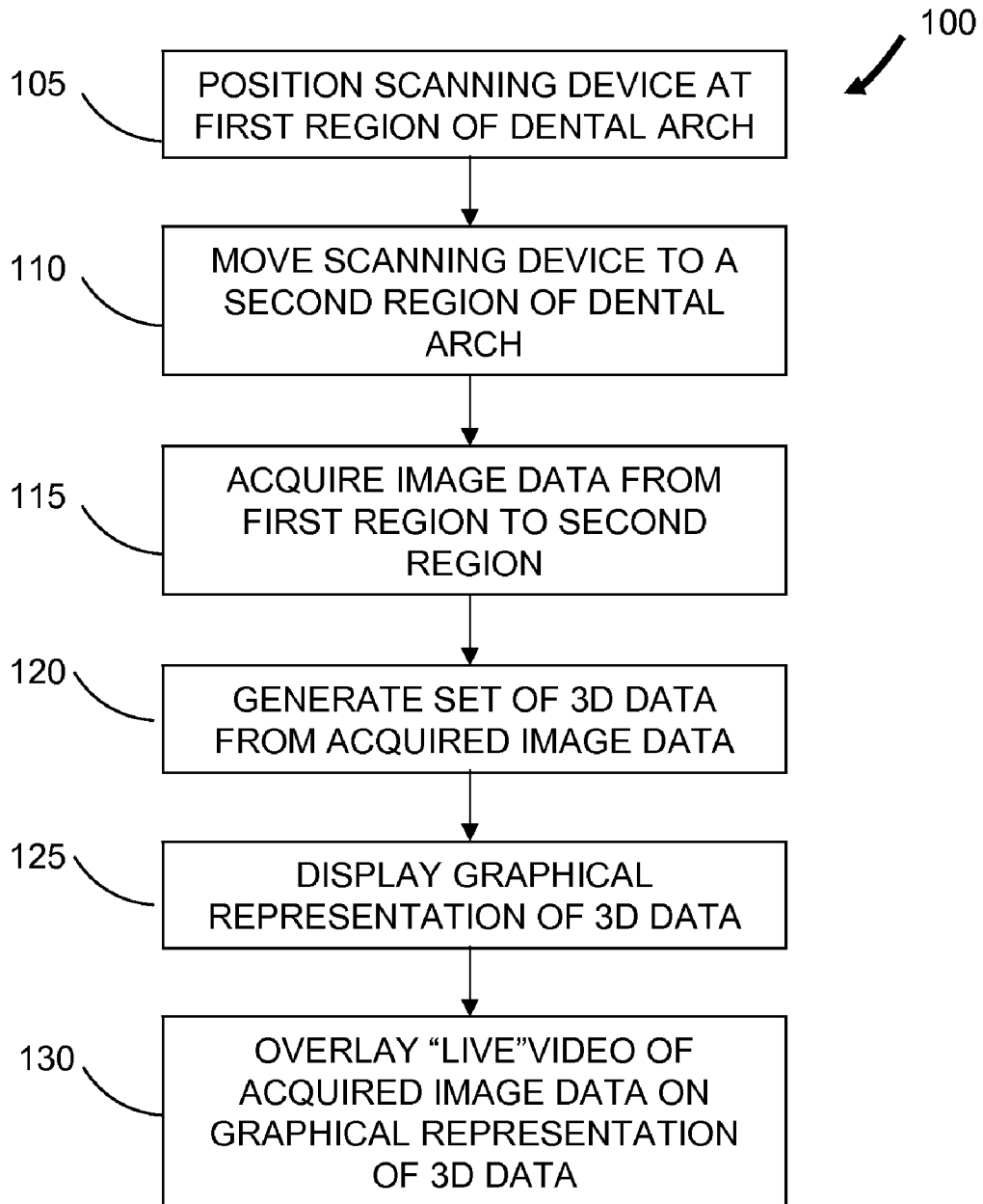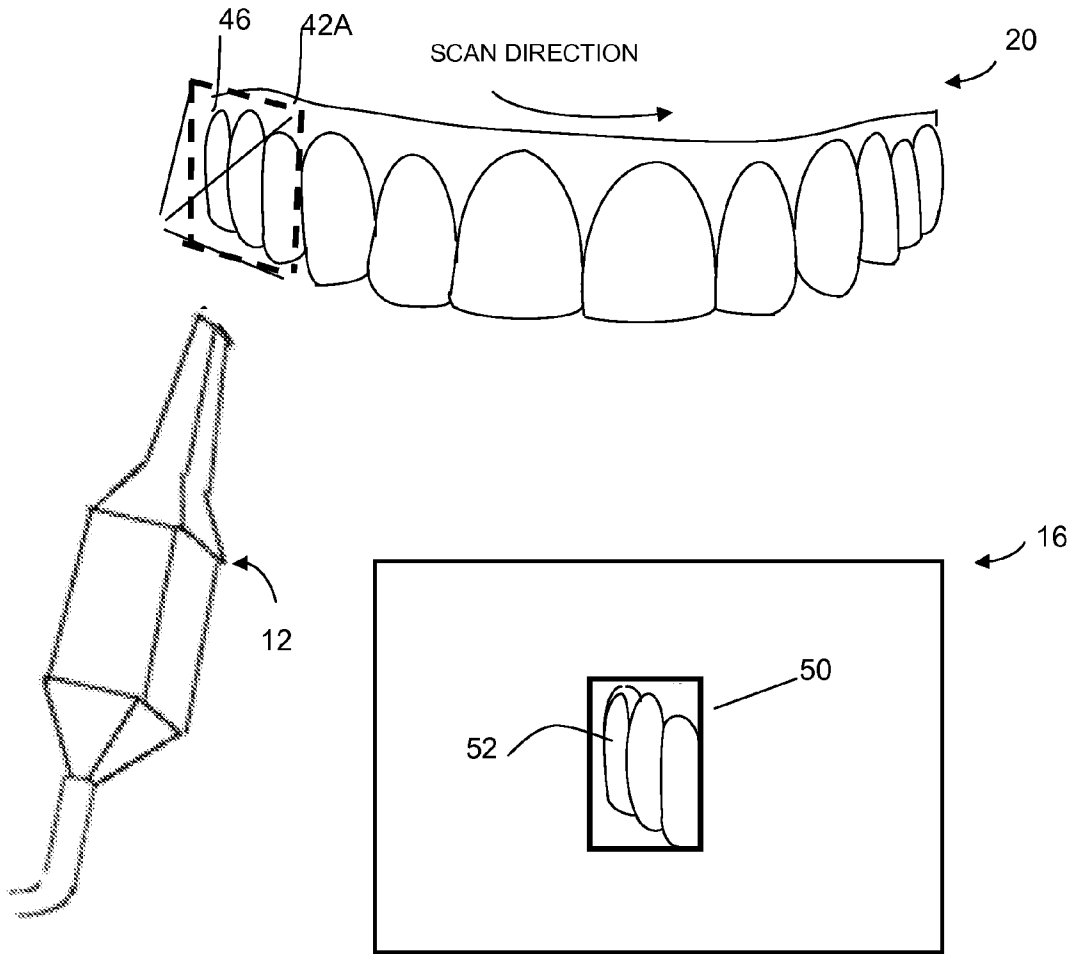
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