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(54) **VISUALIZING AND MANIPULATING DIGITAL MODELS FOR DENTAL TREATMENT**

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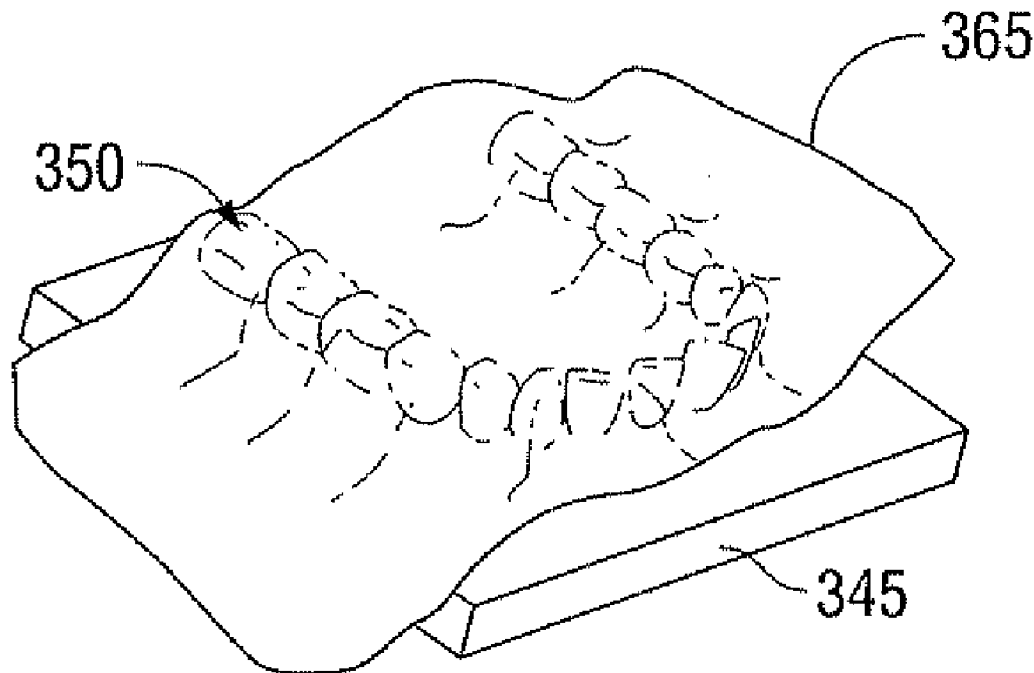
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(57) **ABSTRACT**

Methods and apparatus for visualizing and manipulating three-dimensional digital dental models and related methods and apparatus for dental treatments are disclosed. In one aspect, a method for visualizing and manipulating a three-dimensional digital dental model may comprise viewing the three-dimensional digital dental model and using hand gestures to instruct a computer to manipulate one or more teeth in the digital dental model. In other aspects, a dental treatment method may comprise viewing a three-dimensional digital model, using hand gestures, a conventional keyboard, and/or a conventional mouse to instruct a computer to manipulate one or more teeth in the digital model to generate a three-dimensional digital model of a modified arrangement of the subject's teeth, and fabricating one or more dental aligners configured to reposition the subject's teeth into the modified arrangement. Viewing may comprise stereoscopically viewing a digital dental model.



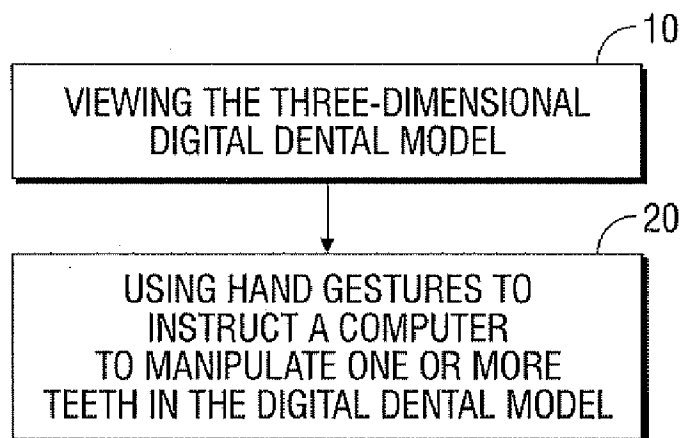


FIG. 1

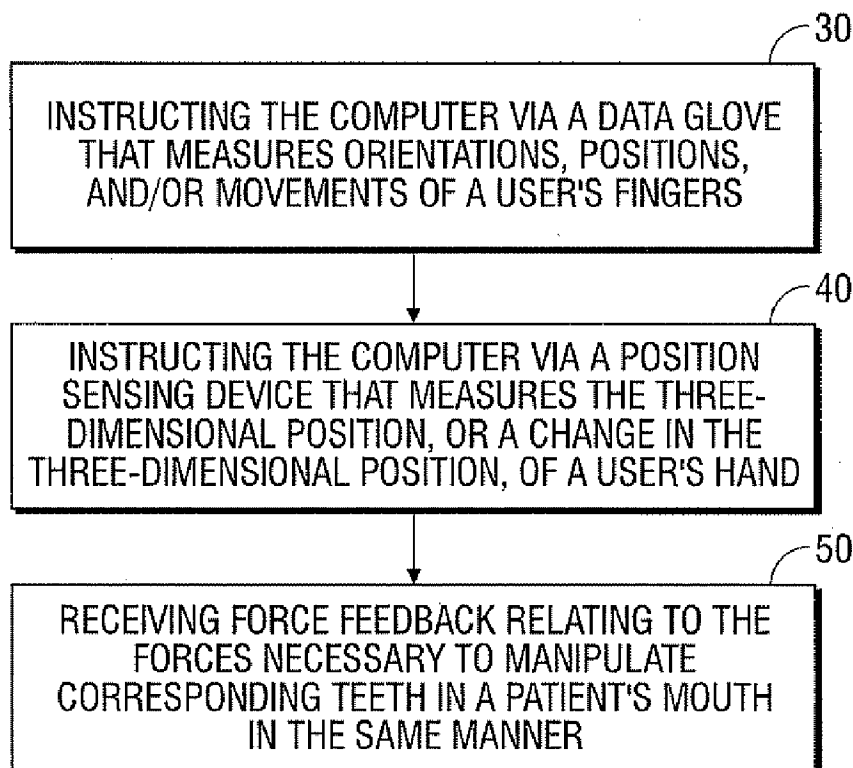


FIG. 2

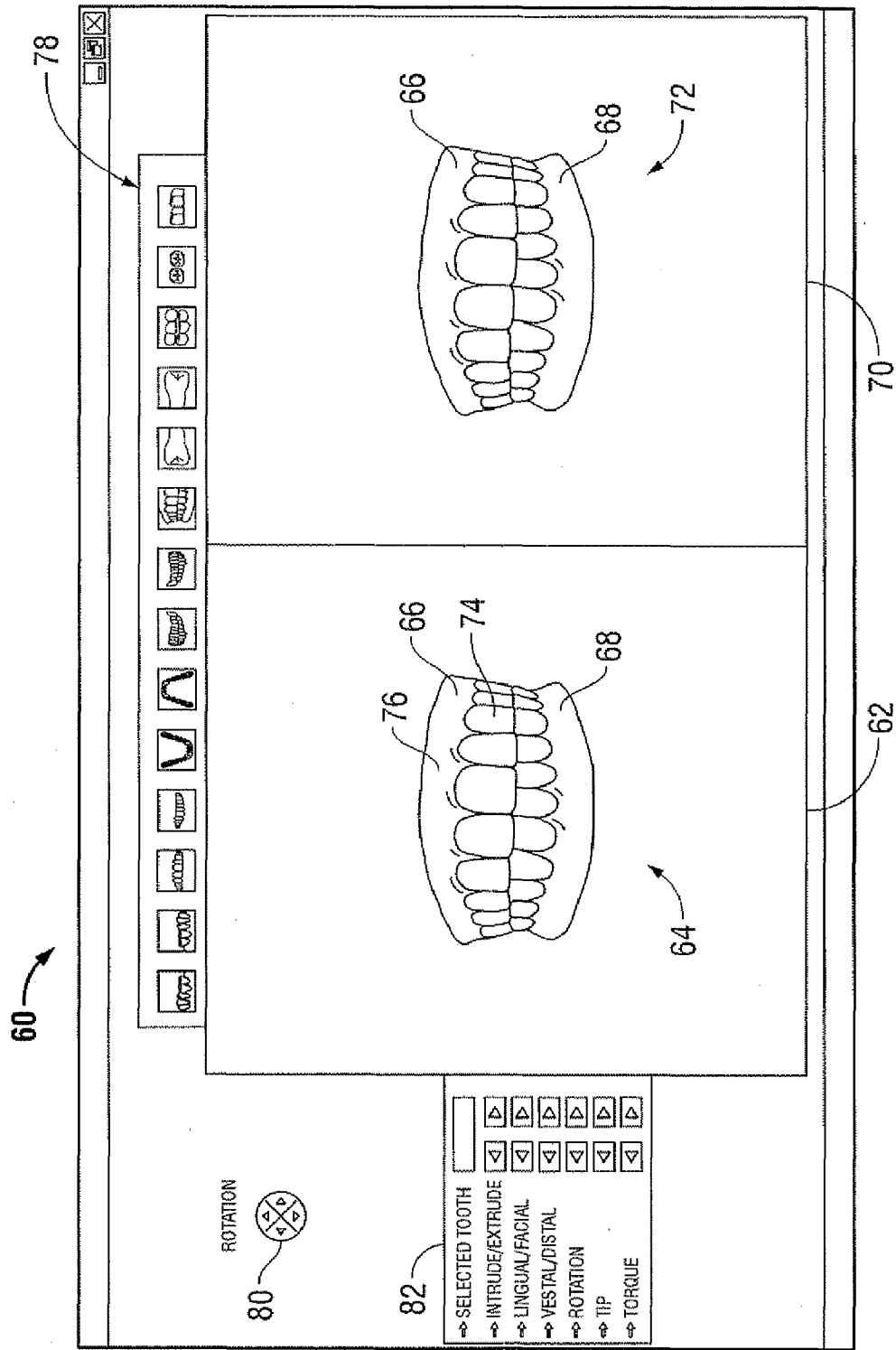


FIG. 3

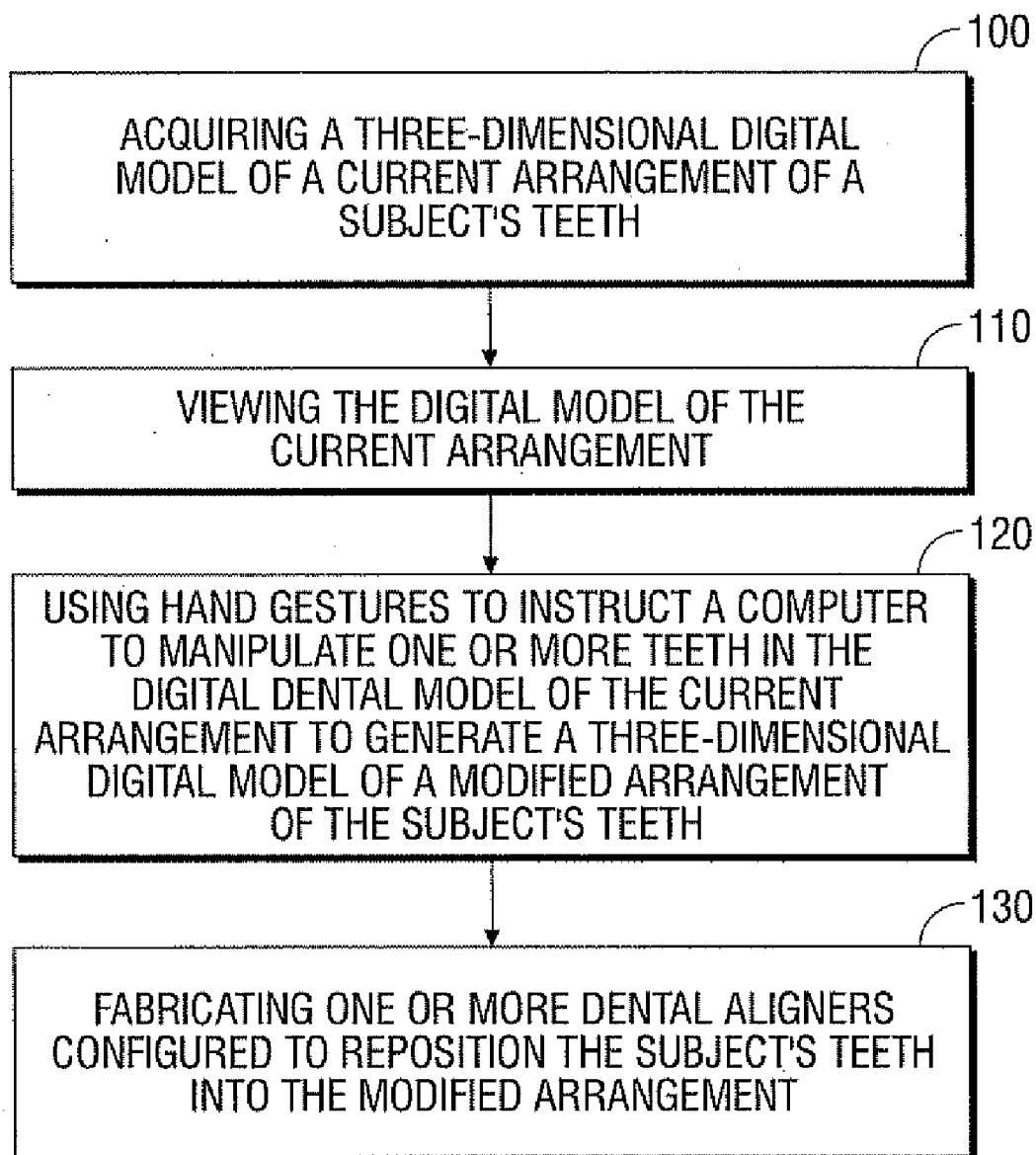
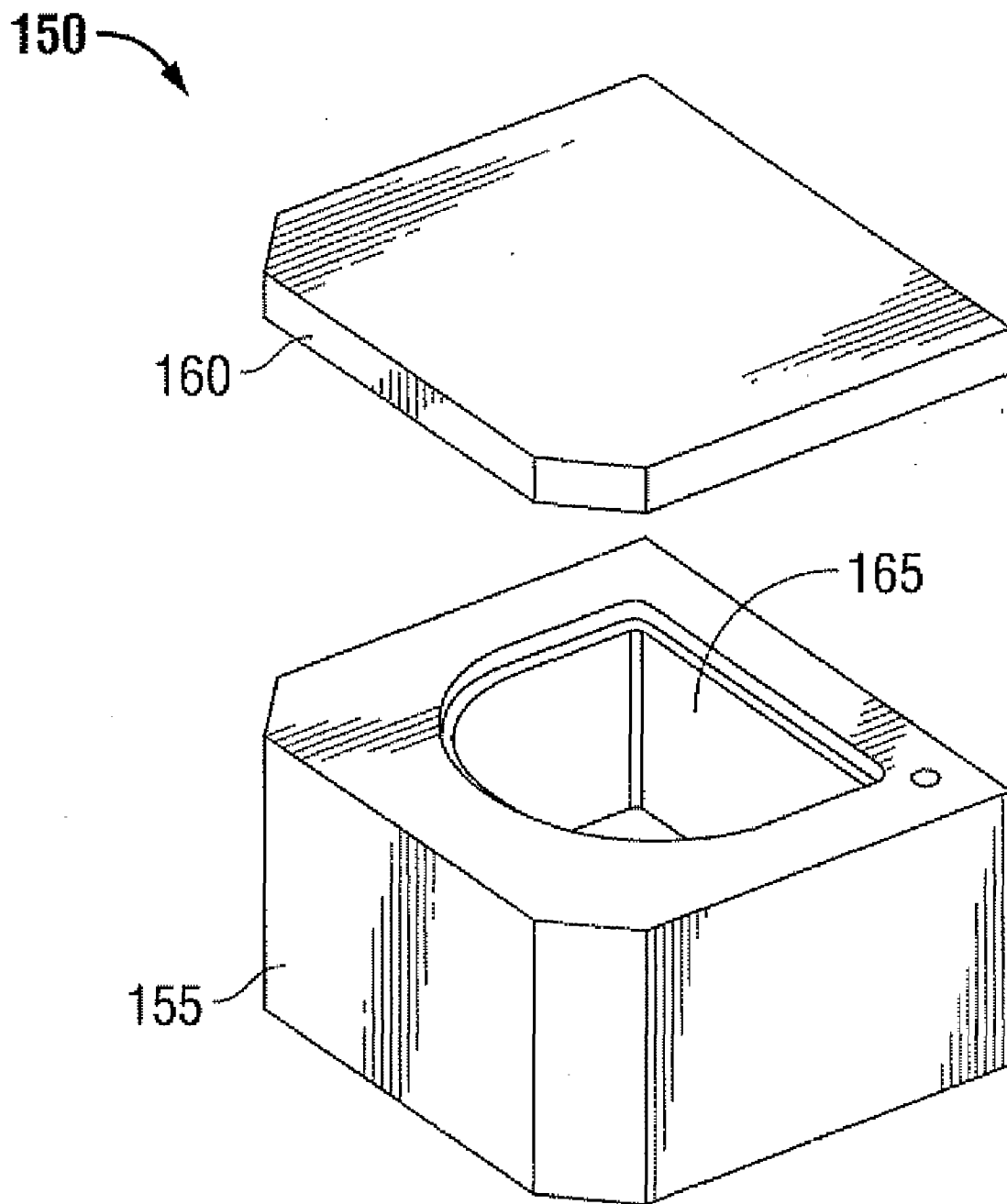


FIG. 4



**FIG. 5**

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