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(54) **PROJECTOR SYSTEMS AND METHODS FOR PRODUCING DIGITALLY AUGMENTED, INTERACTIVE CAKES AND OTHER FOOD PRODUCTS**

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See application file for complete search history.

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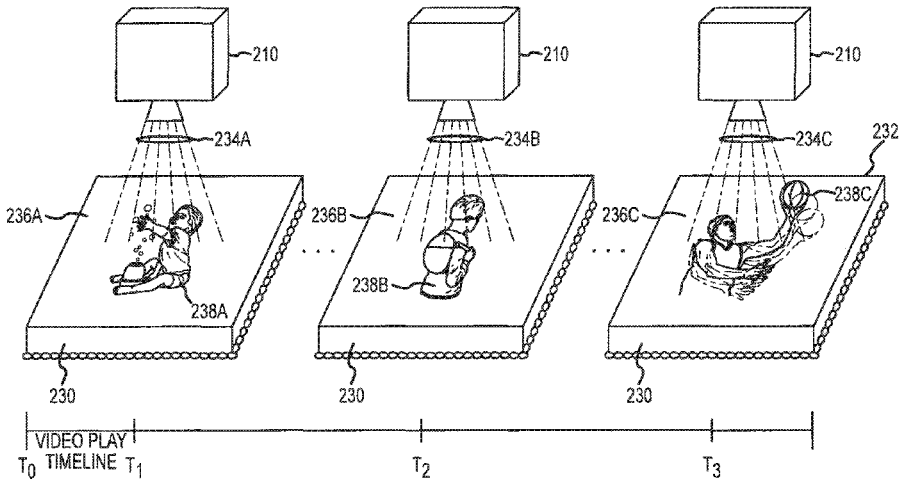
(57) **ABSTRACT**

A method for digitally augmenting or enhancing a food product such as the surface or top of a cake or other edible object. The method includes generating an augmentation media file based on a projection surface of the food product such as a digital movie or image that is mapped to the 3D topography of projection surface and that is projected on the food product using a properly aligned projector. Interactivity is provided by having the method include determining a modification or change of the 3D topography of the projection surface and, based upon the modification, generating a modified augmentation media file and operating the projector to use the modified augmentation media file to project a modified projected image on the food product. The method further provides interactivity by detecting a user interaction with the projection surface and generating a modified augmentation media file based on this tracked interaction.

16 Claims, 11 Drawing Sheets