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Zhou

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(54) **FOOD PREPARATION DEVICE WITH SMART SPRING**

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(57) **ABSTRACT**

A food preparation device such as toaster includes a chassis, a heating element, and a carriage for directly or indirectly supporting a food item. The carriage is movable with respect to the chassis to move the food item to or from a cooking position adjacent to the heating element. A Shape Memory Alloy resistance member is connected between the carriage and the chassis. Electric circuitry controls voltage/current to the Shape Memory Alloy resistance member to selectively heat the resistance member and alter its shape to move the carriage to or from the cooking position.

7 Claims, 6 Drawing Sheets

