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(54) **Title:** SYSTEMS AND METHODS FOR ACTIVE WARMING OF A CARTRIDGE

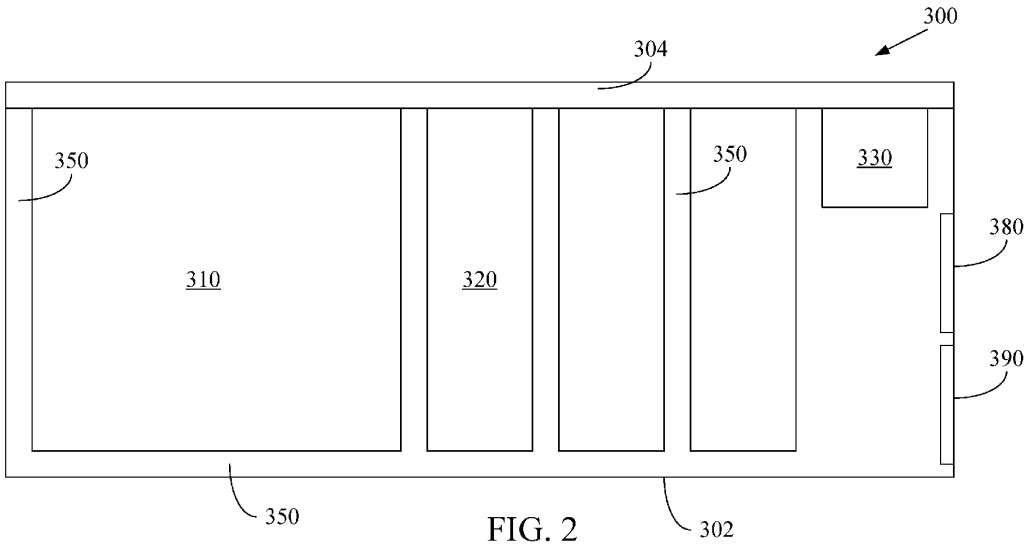


FIG. 2

(57) **Abstract:** Described herein are devices, systems, and methods for constructing and utilizing a cartridge having one or more active warming elements. A cartridge can include a housing, an active warming element, and a power source connector. The housing can define a chamber storing a volume of reagent therein. The active warming element can be embedded within the housing and positioned proximate to the chamber. The power source connector can be coupled to the housing and electrically coupled to the active warming element embedded within the housing. The active warming element is to thaw the volume of reagent within the chamber responsive to providing electrical power to the power source connector.

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