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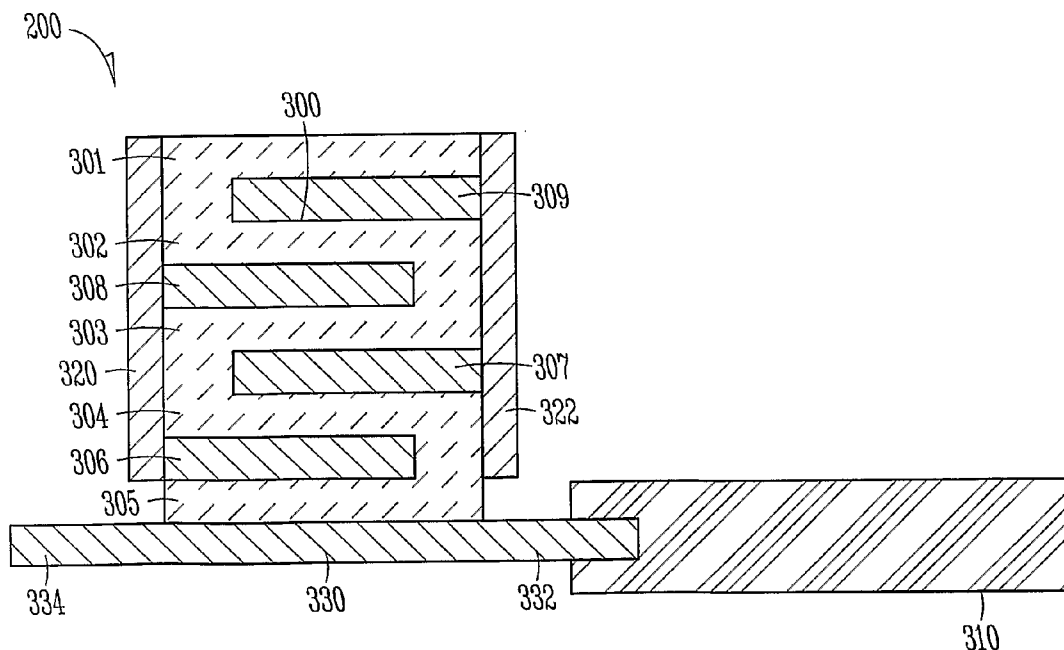
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(54) Title: PIEZO ACTUATOR FOR COOLING



(57) Abstract: A piezo actuator includes a plurality of layers of ceramic material (301-305) a plurality of layers of conductive material (306-309) interspersed between the plurality of layers of ceramic material, and a plate (330) attached to a end of the actuator. The plate of the piezo actuator includes an overhang portion (332). Preferably the actuator further comprises a balde (310), injection molded around the plate, to constitute a fan.

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