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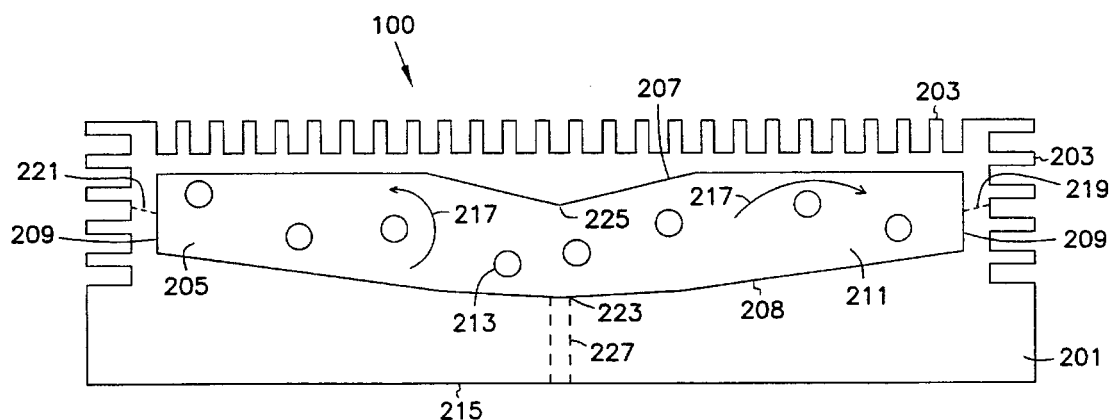
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(54) Title: APPARATUS AND METHOD FOR PASSIVE PHASE CHANGE THERMAL MANAGEMENT



(57) **Abstract:** A heat sink includes a heat sink body including a number of fins and a cavity for holding a phase change material and a number of particles to enhance the mixing of the phase change material during the operation of the heat sink. In operation, the body of the heat sink conducts thermal energy to the phase change material. The energy is absorbed during the phase change of the phase change material. After absorbing energy and changing to a liquid state, the phase change material continues to dissipate energy by convection. The convection currents in the cavity are directed by the shape of the cavity surfaces and enhanced by the particles intermixed with the phase change material.



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