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(54) **FRACTURING SHAPE MEMORY MECHANICAL ACTUATORS AND SYSTEMS**

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See application file for complete search history.

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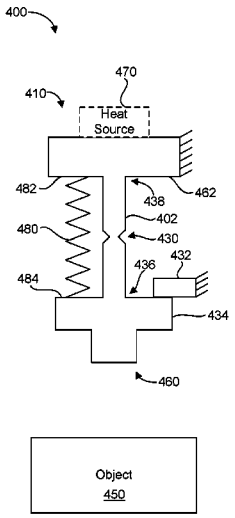
(57) **ABSTRACT**

A mechanical actuator is disclosed. The mechanical actuator can comprise an interface portion configured to interface with an object, a spring configured to exert a force on the interface portion, and a shape memory member coupled to the interface portion. The shape memory member can be configured to fracture at a predetermined temperature range. Upon fracture of the shape memory member, the force of the spring can cause the interface portion to act on the object.

19 Claims, 6 Drawing Sheets